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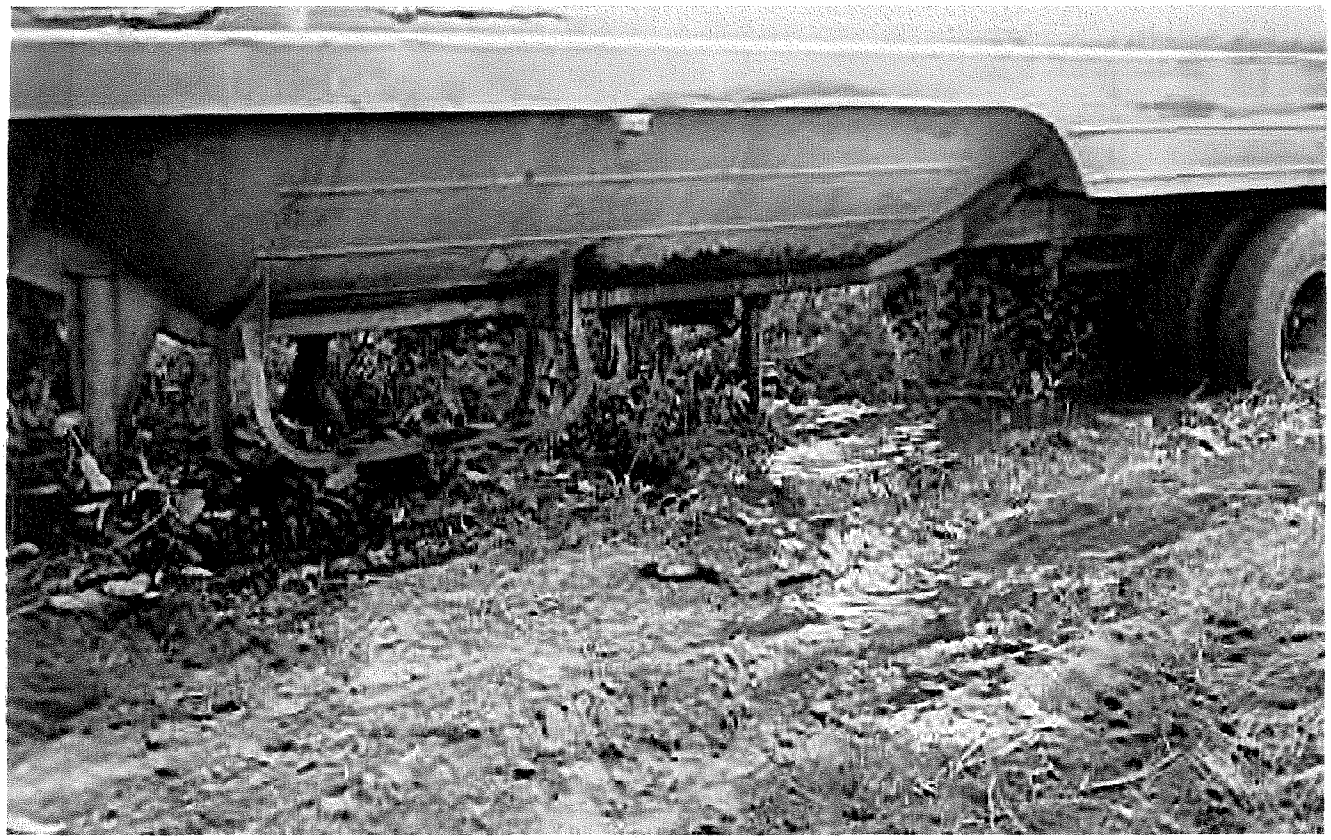
Combined Preliminary Assessment/ Site Inspection Report

for

Tarco, Incorporated Chlorinated Investigation Town of Onalaska, La Crosse County, Wisconsin



Prepared by the Wisconsin Department of Natural Resources

October 7, 2002

COMBINED PRELIMINARY ASSESSMENT/SITE INSPECTION REPORT

For

TARCO, INCORPORATED CHLORINATED INVESTIGATION

Town of Onalaska, La Crosse County, Wisconsin

USEPA # WIN 000508272

October 7, 2002

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1.0 INTRODUCTION

Under authority of the Comprehensive Environmental Response Compensation Liability Act of 1980 (CERCLA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Wisconsin Department of Natural Resources (WDNR) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a Combined Preliminary Assessment (PA)/Screening Site Inspection (SSI) at the Tarco, Inc. site as part of the FY '02 Cooperative Agreement. The purpose of this investigation was to collect information concerning conditions at the Tarco, Inc. site sufficient to assess the threat posed to human health and the environment, and to determine the need for additional investigation under CERCLA or other authority, and if appropriate, support site evaluation using the Hazard Ranking System (HRS) for proposal to the National Priorities List (NPL). The scope of the investigation included reviewing previous information, sampling waste and environmental media to test Preliminary Assessment (PA) hypotheses and to evaluate and document HRS factors and collect additional non-sampling information.

Site Name:	Tarco, Incorporated Chlorinated Investigation
U.S. EPA ID#:	WIN 000508272
Location:	Tarco, Inc. Property – South end of Abbey Road, Town of Onalaska, La Crosse County, Wisconsin Residential Properties – East side of the 5000 to 5200 blocks of State Highway 35, City of Onalaska, La Crosse County, Wisconsin
Purpose:	The purpose of this assessment is to collect samples of surficial soils and groundwater to establish that hazardous material or waste, attributable to the site, has been released into the environment. The sampling strategy will support that the Direct Contact and/or Groundwater Pathways pose, or potentially pose, a threat to human health and the environment.

2.0 SITE DESCRIPTION AND REGULATORY HISTORY

The Tarco, Inc. property is a rural, former farmstead site on which waste solvents were disposed of by free-dumping from a tanker truck directly to the ground's surface for a period of approximately one year in 1972.

On July 5, 1972, the Wisconsin Department of Natural Resources (WDNR) received a complaint from a neighbor adjacent to the Tarco, Inc. property of chemical odors emanating from the Tarco, Inc. property. The property was then owned by the mother of Robert A. Tooke, and used for light agricultural purposes. An inspection of the Tarco, Inc. property by WDNR found evidence of chemical dumping on the property.

No response to the dumping was initiated until Tarco, Inc. conducted a Phase II Environmental Site Assessment (ESA) at the subject property on May 28, 1997. The ESA entailed constructing five soil borings on the subject property, four of which were completed as water table observation wells. In conjunction with this Phase II ESA, the WDNR conducted private water supply well sampling at twelve potential downgradient receptors.

The Tarco, Inc. property is an 18.48 acre site and is located in the SW1/4 of the SE1/4, Section 29, T17N, R7W, Town of Onalaska, La Crosse County, Wisconsin (Latitude 91° West 14' 33", Longitude 43° North 54' 39") and is surrounded by the City of Onalaska. The site remains an abandoned farmstead with fallow fields and small pockets of woodland. The site is relatively flat, with a wooded hillside present along the west boundary. No structures remain at the site, but there are two at-grade foundations of former buildings remaining. Four-lane U.S. Highway 53 abuts the property on the east side, but is separated from the site by a chain link fence. There are no improved roads existing on the site and access is gained via a dirt road entering from the north.

Private water supply wells, which were sampled as part of this project, exist in a residential neighborhood that lies west and southwest of the Tarco, Inc. property, and adjacent to and east and west of State Highway 35.

Directions to the site are as follows: From the intersection of U.S. Highway 53 and County Highway OT in Onalaska, WI go west ¼ mile on County Highway OT to Commerce Road. Go south on Commerce Road for one block, and turn left on Abbey Road. Follow Abbey Road for ½ mile and it deadends into Tarco, Inc. property. Access to the Tarco, Inc. property is gained by proceeding south from the end of Abbey Road and driving along a dirt road and through the open field to various sampling locations on the site.

3.0 OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

In response to a July 5, 1972 complaint received by the WDNR, an inspection of the Tarco, Inc. property by WDNR found evidence of chemical dumping on the Tarco, Inc. property. In a follow-up to the inspection by WDNR it was determined that Robert A. Tooke, then doing business as Modern Clean-Up Services (a.k.a. Tarco, Inc.), had routinely disposed of free liquids on the subject property from a 7,000 gallon tanker truck, and he had done so for a period of approximately one year. The property where the chemical dumping occurred was at the time owned by the mother of Robert A. Tooke. It was determined that 5,000 to 6,000 gallons of waste solvents had been disposed of on the property on a monthly basis. The wastes were released to ground surface in random locations by opening the bung underneath the tanker and allowing the liquids to flow freely to ground, and ultimately percolate into the soil. The waste solvents had allegedly been collected from area industries (i.e., Norplex, Pyroil Division-STP, Continental Can Company, Trane Company, etal.) and included a wide range of petroleum and chlorinated based liquid wastes. The locations of former waste solvent dumping are still identifiable on the subject property due to the presence of a solidified, black tarry substance present at ground surface.

Results of the WDNR's initial complaint follow-up indicated that the following chemicals had been released to the soil at the Tarco, Inc. site:

1. methyl ethyl ketone
2. isopropyl alcohol
3. acetone
4. toluol
5. methyl cellosolve
6. phenolic resin
7. epoxy resin
8. xylene
9. methanol
10. phenolic enamel
11. xylol

12. naptha
13. misc. cleaning solvents

Due to the site's undeveloped state and the sole former use of the site having been for farming, no other potential sources of contamination are known or suspected to exist at the site. Access to the site is unrestricted and evidence exists that neighborhood youth use the site for recreational purposes.

Tarco, Inc. conducted a Phase II Environmental Site Assessment (ESA) at the subject property on May 28, 1997. The Phase II ESA entailed constructing five soil borings on the subject property, four of which were completed as water table observation wells. In conjunction with this ESA, the WDNR conducted private water supply well sampling at twelve potential downgradient receptors. The three down-gradient and one source area groundwater monitoring wells on the Tarco, Inc. property have shown levels of several volatile organic compounds (VOCs) ranging from <0.10 µg/kg to 30 µg/kg. VOC contaminants have also been detected in several down-gradient private water supply wells at levels ranging from <0.15 µg/kg to 470 µg/kg. To date, three private well owners have received an advisory from the Department not to use water from their wells for consumptive purposes due to VOC contamination, and have subsequently been connected to the City of Onalaska's municipal water supply system. Several other private wells exhibited low levels of VOC contamination that did not exceed their respective drinking water standards.

Another source of chlorinated contamination does exist to the south of Tarco, Inc. property, and is related to the L.B. White facility, a site which was investigated by the responsible party and subsequently closed by the WDNR on June 4, 1996. Based on existing documentation, it appears that the two plumes associated with the Tarco, Inc. property and the L.B. White facility are individually distinguishable and are not co-mingled near their source areas. However, as the two plumes advanced to the southwest, it becomes more difficult to determine whether impacts to homes to the west of State Highway 35 and south of Riders Club Road are related to comingling of the two plumes.

4.0 DISCUSSION OF MIGRATION PATHWAYS

Based on historic evidence of a release of waste solvents to the soil of the Tarco, Inc. property, this PA/ SI was conducted to evaluate the groundwater and direct contact pathways related to soil, to determine whether soil at the site continues to act as an ongoing source of contamination to groundwater, and to evaluate trends in contaminant migration in groundwater.

4.1 GROUNDWATER

This area is comprised of river terrace type deposits overlying sandstone bedrock. From the surface, prior investigations in the area document silt with sand to 8 feet below ground surface (bgs). Below 8 feet bgs, the unconsolidated deposits in the Onalaska area consist primarily of fine to medium-grained, well sorted, stratified sand, with a small percentage of silts and gravel.

Bedrock is anticipated to be encountered at approximately 185 feet bgs, based on boring data from remedial investigations at the L.B. White facility and the City of Onalaska landfill. The underlying bedrock is reported to consist of approximately 1,200 feet of undifferentiated Cambrian sandstone, including the Jordan Sandstone, St. Lawrence Formation, Franconia, Galesville, Eau Claire and Mt. Simon Sandstones. Bedrock was not encountered in borings at the site to a maximum depth of 108 feet bgs.

The regional aquifer related to the Tarco, Inc. property has been determined to exist at a depth of

approximately 64 feet to 100 feet bgs. Results from the four on-site groundwater monitoring wells and the extensive well network which had formerly been in place at the L.B. White facility, immediately south of the subject property, indicate that groundwater flow is consistently to the southwest across the site. The regional aquifer discharges to the Black River within 2,400 feet of the Tarco, Inc. property, and several private water supply wells remain in use between the source area and the Black River.

Groundwater acts as the sole source of private and municipal drinking water within a 4-mile radius of the Tarco, Inc. site. Approximately 28,000 people live within a 4-mile radius of the Tarco, Inc. site. Approximately 2,000 of the 28,000 rely on private water supply wells and 26,000 of the 28,000 are served by a municipal water supply system. Properties adjacent to, and east, southwest and southeast of the Tarco, Inc. property lie within the City of Onalaska, and are served by municipal water and sewerage systems. Properties to the north and west of the Tarco, Inc. property are served by individual or shared private water supply wells and septic systems.

The nearest potable well serves a subdivision of 42 homes, and is located approximately 700 feet west and sidegradient of the known source area on the Tarco, Inc. property. Private water supply wells serving individual homes are located 1,900 feet west by southwest and downgradient of the known source area on the Tarco, Inc. property. The nearest municipal well is Onalaska's Municipal Well #8, and is located approximately 4,500 feet south by southeast, and sidegradient of the site. All water supply wells evaluated within the scope of this PA/SI are terminated within the regional, alluvial sand and gravel aquifer underlying the Tarco, Inc. property. The Tarco, Inc. site does not lie within the wellhead protection area of any of the area's municipal water supply wells.

There are four groundwater monitoring wells, MW-1 to MW-4, located on the Tarco, Inc. property, that were constructed as part of Tarco, Inc.'s 1997 Phase II ESA. MW-1 serves as a background well on the east central portion of the property. MW-2 through MW-4 are located downgradient of the source area. The four wells all serve as water table observation wells.

Historic results and results of PA/SI groundwater sampling collected by the WDNR on July 1 and 2, 2002 are presented in Table 1. The results indicate that groundwater was, and continues to be impacted by the former waste solvent dumping which occurred at the site in 1972. Monitoring well MW-4 was not sampled due to an obstruction in the casing at approximately seventy five feet below ground surface. Groundwater contamination still present at the site is limited to chlorinated solvents, with the exception of low levels of endosulfan sulfate at 0.032 ug/L in PW-10, and manganese at 3,100 ug/L in MW-3. When the PA/SI volatile organic compound (VOC) data is compared with groundwater data collected at and adjacent to the site in 1998, it appears that the plume has advanced from the site at least 2,400 feet to the southwest, and likely discharges to Lake Onalaska through baseflow at very low concentrations. VOC concentrations in groundwater at the Tarco, Inc. site appear to be slightly downward trending and are present at relatively low levels. The only remaining ch. NR 140, Wis. Adm. Code, enforcement standard exceedance for groundwater on-site is for trichloroethene (TCE), and the concentrations of trichloroethene range from 8 to 26 µg/L in the on-site groundwater monitoring wells.

Private wells PW-1 to PW-6, and PW-9 to PW-10 are located west and southwest of Tarco, Inc.'s source area. PW-7 and PW-8 are located directly downgradient of the Tarco, Inc. source area and were significantly impacted by VOC contamination when sampled in 1998. Based on the impacts to PW-7 and PW-8, this area was subsequently annexed to the City of Onalaska and those homes were connected to Onalaska's municipal water supply system in 1998. The potable wells, PW-7 and PW-8, were left in place for purposes of future groundwater sampling and were meant to be included in the PA/SI sampling in July 2002. Attempts were made to activate these two wells for

sampling purposes, but were unsuccessful due to the submersible pumps having become inoperable after four years of non-use. PW-1 to PW-6 were all sampled and analytical results indicate that they have not been impacted by the Tarco, Inc. source area, and contaminants of concern were not detected in those water supplies.

Analytical results from PW-9 indicate that 1,1,1-trichloroethane is present at 5 µg/L and 1,1,2-trichloroethane is present at 0.9 µg/L. When compared with 1998 analytical results from PW-9, it appears that a downward trend in concentration exists at this well. Neither of these two contaminants exceeded their individual drinking water standards.

Analytical results from PW-10 indicate that four VOCs are present in this well, 1,1-dichloroethane at 1 µg/L, 1,1-dichloroethene at 9 µg/L, 1,1,1-trichloroethane at 35 µg/L, and 1,1,2-trichloroethane at 0.7 µg/L. Of these four VOCs, only 1,1-dichloroethene exceeds the applicable drinking water standard of 5 µg/L. When compared with the 1998 sampling data, it appears that the number of individual VOCs, as well as their concentrations, have trended upward over the past four years. This is due to the center of the VOC contaminant plume continuing to advance to the southwest, away from the source, and toward Lake Onalaska, 250 feet to the west. Based on PW-10 lying directly downgradient of L.B. White facility, and the chemical composition of the contaminants, it appears likely that the impacts to this water supply well relate to the L.B. White plume, and are not related to the Tarco, Inc. plume. The homeowners of PW-10, a family of two, have been advised of the impacts to their well, and have requested that no remediation be initiated in regard to their water supply. Efforts are underway to provide the home with bottled water, should they so desire.

4.2 SURFACE WATER

Groundwater flows through the regional, alluvial sand and gravel aquifer to the southwest and discharges to the Black River (a.k.a. Lake Onalaska) within 2,400 feet of the Tarco, Inc. property. In this area the Mississippi, Black and La Crosse rivers all reach confluence within 4 miles of the Tarco, Inc. site. The surface water system into which groundwater discharges is known as Lake Onalaska and is approximately 23,500 feet wide from east to west. Based on this river system's extremely high water volume and flow characteristics, the low level of contaminants, which may enter into the river system through the groundwater pathway, would be considered negligible, and therefore was not assessed in this PA/SI report.

Surface drainage of this area occurs through both direct soil percolation and storm water collection and discharge to the river system. Surface drainage within the Tarco, Inc. property occurs solely through direct soil percolation, and subsequently groundwater was evaluated as part of this PA/SI report. The river system in this area is not used as a source of drinking water.

The Tarco, Inc. property sits approximately 60 feet above the normal pool elevation of Lake Onalaska, and no flood plain issues would therefore relate to the site.

4.3 SOIL EXPOSURE

The Tarco, Inc. property is a combination of fallow fields and oak woodland, surrounded on the east, west and north by residential properties and on the south by light industrial property. The nearest residence and building is located approximately 450 feet from the known source area on the Tarco, Inc. property. Access to the Tarco, Inc. property is not restricted and evidence exists that the property is used frequently by local youths as a recreational area. No known terrestrial sensitive environments or resources exist in the area of observed contamination. Based on current census data, approximately 3,603 people live within a one-mile radius of the site.

TABLE 1
Groundwater Analytical Data
Historic and PA/SI Results

Volatile Organic Compounds (µg/L)	NR140 PAL	NR140 ES	MW-1 4/14/98	MW-1 7/1/02	MW-2 4/20/98	MW-2 7/1/02	MW-3 4/20/98	MW-3 7/1/02	PW-1 7/2/02	PW-2 9/29/98	PW-2 7/2/02	PW-3 8/12/98	PW-3 7/2/02
cis-1,2-dichloroethene	7	70	---	---	---	---	---	1	---	---	---	---	---
1,1-dichloroethane	85	850	---	---	1.9	1	0.48	---	---	---	---	---	---
1,1-dichloroethene	0.7	7	---	---	---	---	---	---	---	---	---	---	---
1,1,1-trichloroethane	40	200	1.6	---	11	6	6.9	4	---	---	---	---	---
1,1,2-trichloroethane	0.5	5	---	---	---	---	---	---	---	---	---	---	---
trichloroethene	0.5	5	**22**	**8**	**30**	**10**	**18**	**26**	---	---	---	---	---
tetrachloroethene	0.5	5	---	---	2.8	2	0.64	2	---	---	---	---	---
Semi-volatile Compounds (µg/L)													
di-n-butyl phthalate	20	100	---	---	---	---	3.7	---	---	na	---	na	---
Pesticide/PCB Compound (µg/L)													
Endosulfan sulfate	NS	NS	na	---	na	---	na	---	---	na	---	na	---
Metals (µg/L)													
Aluminum	NS	NS	na	65.7	na	65.1	na	60.6	47.7	na	52.9	na	44
Arsenic	5	50	na	0.6 M	na	0.6 M	na	3.5	1.7 M	na	1.9 M	na	2.3
Barium	400	2000	na	155	na	115	na	426	97.3	na	101	na	78.1
Magnesium	NS	NS	na	25900	na	20100	na	19300	21800	na	21600	na	15100
Manganese	25	50	na	3.9 M	na	6.1 M	na	**3100**	---	na	---	na	---
Nickel	20	100	na	1.5 M	na	1.5 M	na	4.4	1.3 M	na	1.5 M	na	1.1 M
Potassium	NS	NS	na	1240	na	1040	na	1240	1030	na	1240	na	951
Zinc	2500	5000	na	10.9 M	na	---	na	12.1 M	---	na	192	na	55

(---) indicates analyte not detected above sample quantitation limit
(na) indicates analyte not analyzed for
(Bold) indicates NR 140 enforcement standard exceedance
(M) indicates the quantified value is estimated
(NS) indicates there is no established NR 140 standard for that parameter

TABLE 1
Groundwater Analytical Data (cont.)
Historic and PA/SI Results

Volatile Organic Compounds (µg/L)	NR 140 PAL	NR 140 ES	PW-4 9/29/98	PW-4 7/2/02	PW-5 8/12/98	PW-5 7/2/02	PW-6 9/29/98	PW-6 7/2/02	PW-7 9/28/98	PW-8 9/28/98	PW-9 9/29/98	PW-9 7/2/02	PW-10 9/29/98	PW-10 7/2/02
cis-1,2-dichloroethene	7	70	---	---	---	---	---	---	**430**	26	---	---	---	---
1,1-dichloroethane	85	850	---	---	---	---	---	---	38	21	0.79	---	---	1
1,1-dichloroethene	0.7	7	---	---	---	---	---	---	4	6.5	3.1	---	---	**9**
1,1,1-trichloroethane	40	200	---	---	---	---	---	---	1.1	19	28	5	0.54	35
1,1,2-trichloroethane	0.5	5	---	---	---	---	---	---	**12**	2	0.62	0.9	---	0.7
trichloroethene	0.5	5	---	---	---	---	---	---	**25**	**160**	---	---	---	---
tetrachloroethene	0.5	5	---	---	---	---	---	---	---	---	---	---	---	---
vinyl chloride	0.02	0.2	---	---	---	---	---	---	**3.4**	---	---	---	---	---
Semi-volatile Compounds (µg/L)														
di-n-butyl phthalate	20	100	na	---	na	---	na	---	na	na	na	---	na	---
Pesticide/PCB Compound (ug/L)														
Endosulfan sulfate	NS	NS	na	---	na	---	na	---	na	na	na	---	na	0.032 J
Metals (µg/L)														
Aluminum	NS	NS	na	42.4	na	36.6	na	49.2	na	na	na	33.3	na	45.1
Arsenic	5	50	na	0.8 M	na	2.0 M	na	1.2 M	na	na	na	1.8 M	na	1.7 M
Barium	400	2000	na	71.4	na	77.9	na	74.4	na	na	na	81.6	na	77.6
Magnesium	NS	NS	na	15800	na	15900	na	17000	na	na	na	15500	na	15900
Manganese	25	50	na	---	na	---	na	---	na	na	na	---	na	---
Nickel	20	100	na	1.4 M	na	1.5 M	na	1.7 M	na	na	na	1.2 M	na	1.2 M
Potassium	NS	NS	na	1100	na	1040	na	992	na	na	na	841	na	7111
Zinc	2500	5000	na	120	na	18.7M	na	105	na	na	na	70.2	na	111

(---) indicates analyte not detected above sample quantitation limit
(na) indicates analyte not analyzed for
(Bold) indicates NR 140 enforcement standard exceedance
(M) indicates the quantified value is estimated
(NS) indicates there is no established NR 140 standard for that parameter

TABLE 2
Soil Analytical Data
Historic and PA/SI Results

Sample Location	TB-1	TB-2	TB-2	SS-1	SS-2	SS-3	SS-4	SS-5
Sample Depth	0.5-1'	0.5-1'	64-66'	0-1'	0-1'	0-1'	0-1'	0-1'
Sample Date	4/16/98	4/16/98	4/16/98	7/1/02	7/1/02	7/1/02	7/1/02	7/1/02
Semi-volatile Compounds (µg/kg)								
Benzyl butyl phthalate	---	---	1,300	---	44000	14000	1700	96000
phenol	---	---	---	---	1200	---	110	7000
4-methylphenol	---	---	---	---	500	310 J	360	3900
phenanthrene	---	---	---	---	690	3800	650	500
di-n-butylphthalate	---	---	---	---	33000	11000	1200	69000
fluoranthene	---	---	---	---	760	1100	230 J	550 J
pyrene	---	---	---	---	840	2100	370	1000
anthracene	---	---	---	---	180 J	180 J	71 J	---
Benzo(a)anthracene	---	---	---	---	53 J	140 J	---	---
chrysene	---	---	---	---	130 J	160 J	---	490 J
acetophenone	---	---	---	---	270 J	500	---	---
naphthalene	---	---	---	---	160 J	710	190 J	---
2-methylnaphthalene	---	---	---	---	---	130 J	---	---
fluorene	---	---	---	---	---	160 J	41 J	---
Pesticide/PCB Compound (µg/kg)								
beta-BHC	na	na	na	---	4.5 J	3.2 J	---	---
delta-BHC	na	na	na	---	3.6 J	4.2 J	---	8.0 J
Endosulfan I	na	na	na	---	11 J	---	---	7.8 J
4,4'-DDE	na	na	na	---	41	7.8 J	---	9.5 J
4,4'-DDT	na	na	na	---	---	25 J	5.2 J	17 J
Endrin	na	na	na	---	19 J	---	---	9.0 J
Endosulfan II	na	na	na	---	15 J	---	---	7.1 J
Endosulfan sulfate	na	na	na	---	22 J	---	---	26
Methoxychlor	na	na	na	---	42 J	---	---	---
Heptachlor epoxide	na	na	na	---	---	5.0 J	---	4.7 J
Gamma-chlordane	na	na	na	---	13 J	60	2.6 J	3.8 J
Metals (mg/kg)								
Antimony	---	---	---	---	2.1 J	204 J	32 J	10.4 J
Arsenic	---	---	---	---	---	1.3	---	1.4
Barium	68	82	---	32.9	56.5	1010	160	101
Chromium	12	7.4	---	5.2	8.0	222	43.9	12.0
Cobalt	---	---	---	2.7	3.2	4.9	4.2	5.4
Lead	9.0	---	---	4.5	6.1	15.9	7.5	9.2
Zinc	---	---	---	19.9	56.8	1200	256	58.3

(---) indicates analyte not detected above sample quantitation limit
(na) indicates analyte not analyzed
(J) indicates the analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.

Tarco, Inc. conducted a Phase II Environmental Site Assessment (ESA) at the subject property on May 28, 1997. The Phase II ESA entailed constructing six soil borings on the subject property, four of which were completed as water table observation wells, and two of which, TB-1 and TB-2, were advanced in the source area with visible signs of former waste solvent dumping. Surficial soil samples and/or groundwater interface soil samples were collected from TB-1 and TB-2 and the results are presented in Table 2. Five surficial soil samples were collected from SS-1 to SS-5 as part of this PA/SI and results are presented with the historic data in Table 2.

Analytical data from the five surficial soil samples indicate that only SS-3 exhibits an exceedance of an applicable state or federal residual soil contamination level (RCL) based on the non-industrial soil ingestion pathway. Benzo(a)anthracene was detected in SS-3 at a concentration of 140 µg/kg, and the data was qualified as being a positive identification of the compound, but the concentration was only an approximate value. The applicable EPA RCL for benzo(a)anthracene is 870 µg/kg, and the applicable WDNR RCL is 88 µg/kg. Antimony was detected in SS-3 at a concentration of 204 mg/kg, and the data was qualified as being a positive identification of the metal, but the concentration was only an approximate value. The applicable EPA RCL for antimony is 31 mg/kg, and there is no applicable WDNR RCL. There were no other metals or semi-volatile organic compounds found to exceed their respective state or federal RCLs. Pesticides and/or PCBs were detected at concentrations below the individual compounds respective RCLs. No VOCs were detected in the soil samples collected.

4.4 AIR

In 1972, a neighborhood resident filed a complaint with the WDNR related to chemical odors emanating from the site during and subsequent to solvent dumping events. However, since dumping was discontinued in late 1972, no additional odor complaints have been received by the WDNR. During the PA/SI sampling fieldwork by the WDNR in July 2002, no odors or PID responses were detected in ambient air at the site. It is not likely therefore that the site represents a threat to air quality based on the soil data collected and the age of the past release.

5.0 SUMMARY AND CONCLUSION

The objectives of the Tarco, Inc. Preliminary Assessment/Site Inspection (PA/SI) were to collect surficial soil and groundwater samples to establish that hazardous substances or wastes had been released to the environment and to evaluate the site for potential inclusion to the National Priorities List (NPL). Sampling was completed to evaluate whether the groundwater and soil exposure pathways pose, or potentially pose, a threat to human health and the environment. Sampling was completed in accordance with the sampling plan submitted previously to the EPA.

The Tarco, Inc. property is a rural, former farmstead site on which waste solvents were disposed of by free-dumping from a tanker truck directly to the ground's surface for a period of approximately one year in 1972. On July 5, 1972, the Wisconsin Department of Natural Resources (WDNR) received a complaint from a neighbor adjacent to the Tarco, Inc. property of chemical odors emanating from the Tarco, Inc. property. The property was then owned by the mother of Robert A. Tooke, and used for light agricultural purposes. An inspection of the Tarco, Inc. property by WDNR, in 1972, found evidence of chemical dumping on the property. Additional sampling completed by both Tarco, Inc. and the WDNR in 1998 found further evidence of environmental impacts to groundwater associated with the prior release of waste solvents on the site.

The PA/SI sampling indicated that the prior release of waste solvents at the site has resulted in very minimal impacts to the surficial soil at the site. Only two substances, antimony and

benzo(a)anthracene were found to exceed their respective direct contact standards in one location on the Tarco, Inc. property.

In addition, the PA/SI sampling indicated that groundwater beneath and downgradient of the site continues to be impacted by the prior release of waste solvents at the site. The only remaining exceedance of a groundwater standard in monitoring wells at the site relates to trichloroethene, which remains present at concentrations ranging from 8 to 26 µg/L. The contaminant groundwater plume is known to have migrated approximately 2,600 feet to the southwest, impacting two private wells, PW-7 and PW-8, and resulting in these two homes being advised not to use their water supplies for consumptive purposes. These two homes were subsequently connected to a municipal water supply system in 1998. As a result of the PA/SI sampling, two additional homes, PW-9 and PW-10, were found to have been impacted by VOC contamination. Of these two homes, only PW-10 was found to have an exceedance of the applicable groundwater standards. The VOC 1,1-dichloroethene, which has an ch. NR 140, Wis. Adm. Code, enforcement standard of 5 µg/L, was found to be present in PW-10 at a concentration of 9 µg/L, and the residents of this home were subsequently advised not to use their water supply for consumptive purposes. Based on the location of PW-10 lying directly downgradient of L.B. White facility, and the chemical composition of the contaminants, it appears likely that the impacts to this water supply well relate to the L.B. White plume, and are not related to the Tarco, Inc. plume. The homeowners of PW-10, a family of two, have requested that no remediation be initiated in regard to their water supply at this time. Efforts are underway to provide the home with bottled water, should they so desire.

References

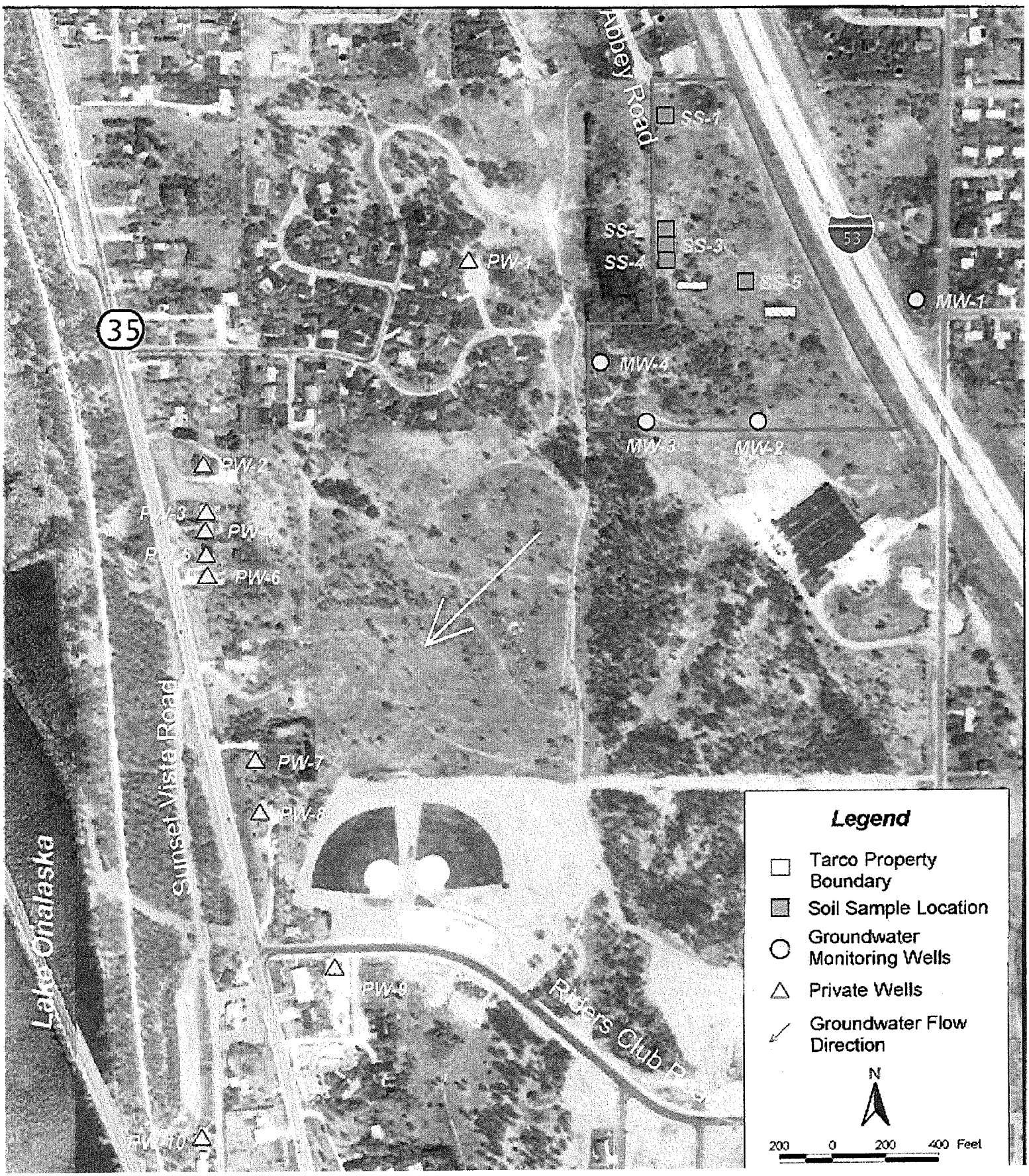
1. U.S. Geological Survey, 7.5 minute topographic quadrangle maps of Wisconsin: Holmen, Onalaska, La Crescent, and La Crosse, 1973.

2. Fluid Management, Request for Site Closure, Tarco South Property – East Property, 2100 East Avenue North, Onalaska, Wisconsin 54650, May 28, 1998.

3. Midwest Environmental Management Company, Phase II Environmental Site Assessment Report, Tarco South Property, 2100 East Avenue North, Onalaska, Wisconsin, October 6, 1997

Tarco, Inc. PA/SI Sampling

Onalaska, WI



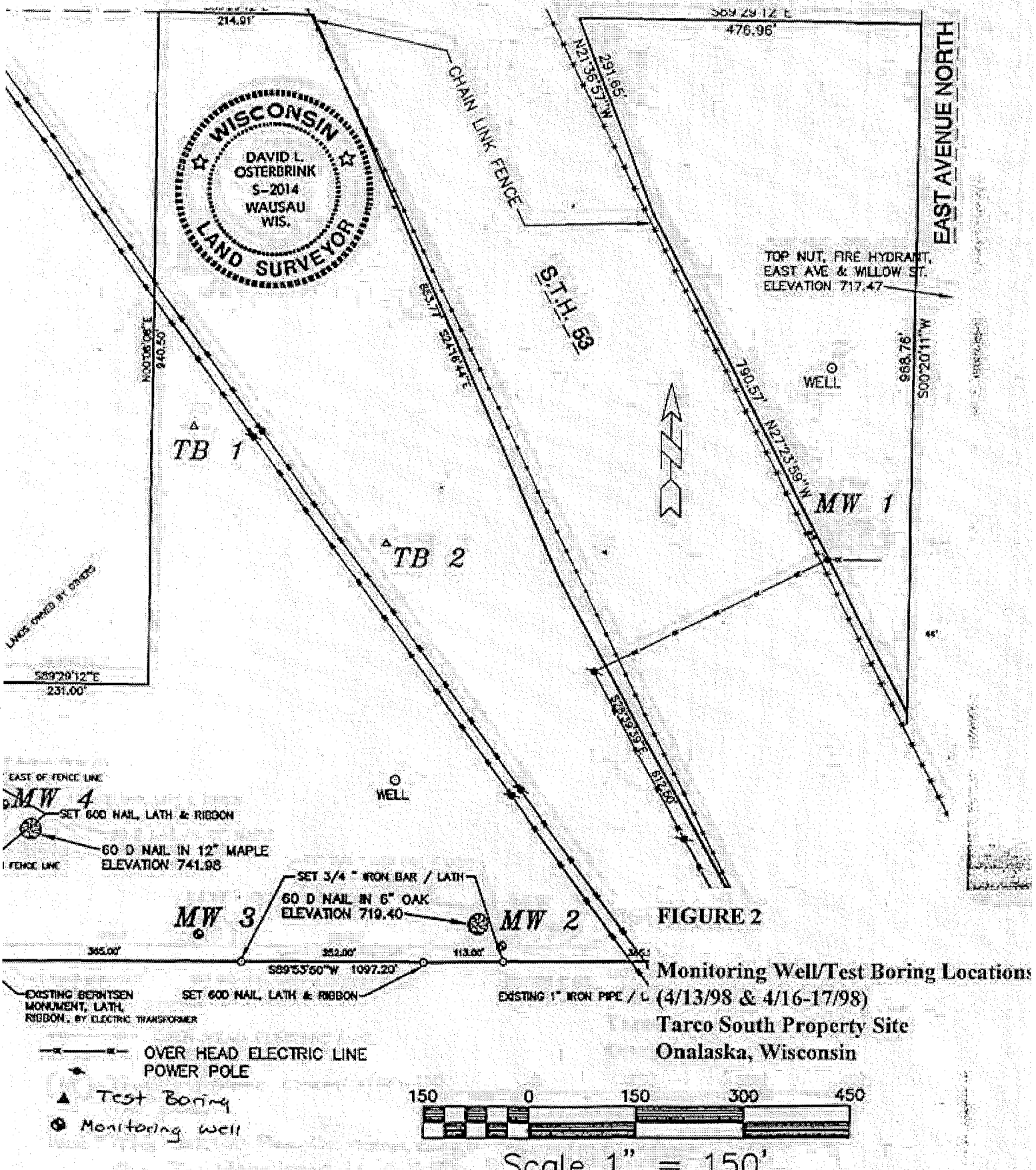


FIGURE 2

Monitoring Well/Test Boring Locations (4/13/98 & 4/16-17/98)
Tarco South Property Site
Onalaska, Wisconsin

PHOTO DOCUMENTATION LOG

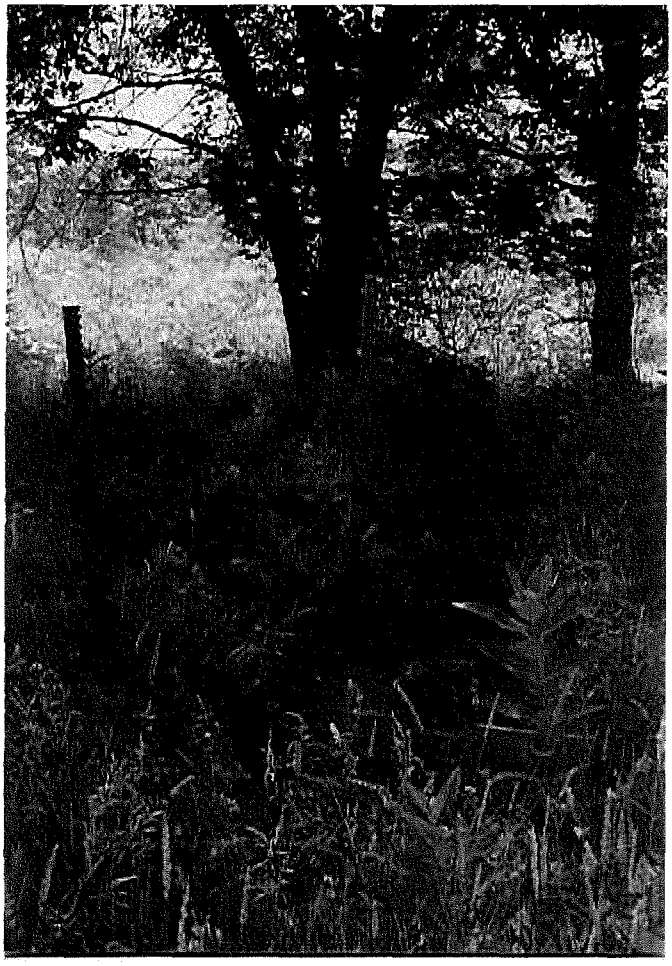


Photo 1

Sample location for SS-1 looking southeast (Photo taken by Mae Willkom, July 2002).

Photo 2

Sample location for SS-2 looking west
(Photo taken by Mae Willkom, July 2002).

Photo 3

Sample location for SS-3 looking southwest
(Photo taken by Mae Willkom, July 2002)

Photo 4

Sample location for SS-4 looking southwest.
(Photo taken by Mae Willkom, July 2002)

Photo 5

Sample location for SS-5 looking east.
(Photo taken by Mae Willkom, July 2002)

Photo 6

Photo of waste solvent dumping on Tarco, Inc. property
(Photo taken by Clancy Stoffel, August 1972)

Photo 7

Photo of waste solvent pooled on ground surface on Tarco, Inc. property
(Photo taken by Clancy Stoffel, August 1972)

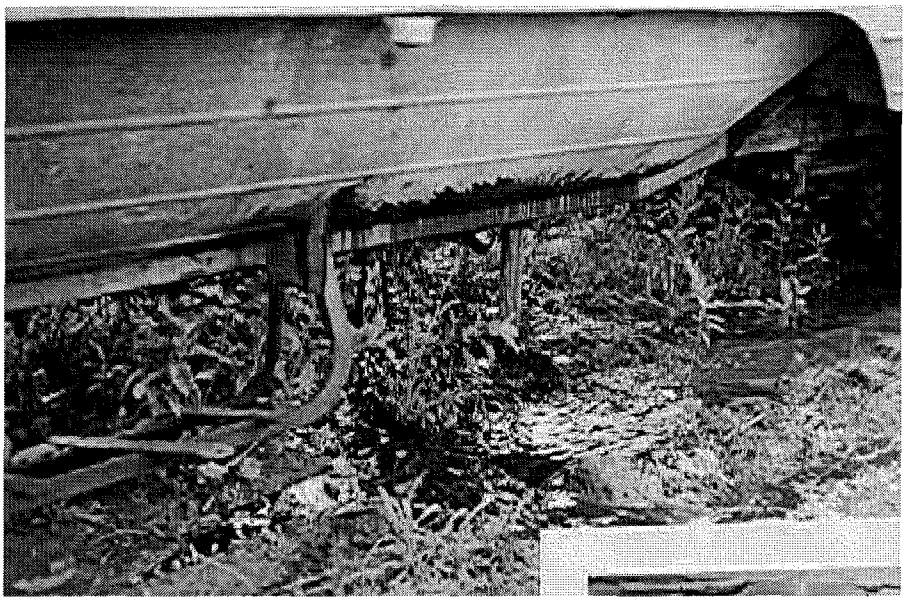


Photo 8

Photo of tanker releasing waste solvent to soil on Tarco, Inc. property (Photo taken by Clancy Stoffel, August 1972)

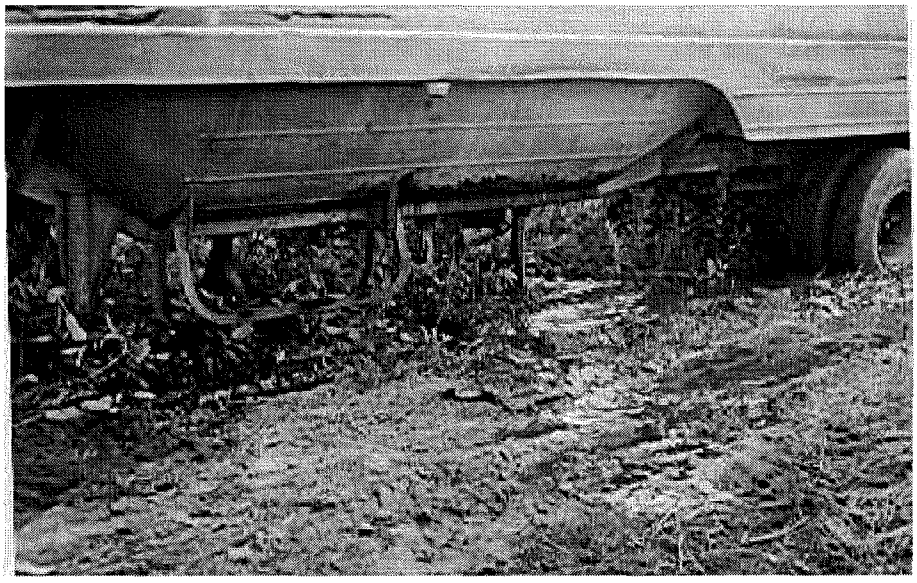


Photo 9

Photo of tanker releasing waste solvent to soil on Tarco, Inc. property (Photo taken by Clancy Stoffel, August 1972)

APPENDIX A

Analytical Results Report
Groundwater Data

Analytical Results (Qualified Data)

Case #: 30665
Site :
Lab. :
Reviewer :
Date :

SDG : E1YW4
TARCO SOUTH (WI)
MITKEM
S. Tobin
07/31/2002

A
Number of Soil Samples : 0
Number of Water Samples : 16

Sample Number :	E1YW4		E1YW5		E1YW6		E1YW6DL (Diluted)		E1YW8 (Field duplicate of MW-2)	
Sampling Location :	MW-1		MW-2		MW-3		MW-3		MW-5	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		2.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Chloromethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Vinyl Chloride	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Bromomethane	0.5	U	0.5	U	0.5	U	~~1~~	~~UJ~~	0.5	UJ
Chloroethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,1-Dichloroethene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Acetone	5	U	5	U	5	U	~~10~~	~~U~~	5	U
Carbon Disulfide	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Methyl Acetate	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Methylene Chloride	0.5	UJ	0.5	UJ	0.5	UJ	~~1~~	~~UJ~~	0.5	UJ
trans-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
tert-Butyl Methyl Ether	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,1-Dichloroethane	0.5	U	1		0.5	U	~~1~~	~~U~~	1	
cis-1,2-Dichloroethene	0.5	U	0.5	U	1		~~1~~	~~U~~	0.5	U
2-Butanone	5	U	5	U	5	U	~~10~~	~~U~~	5	U
Bromochloromethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,1,1-Trichloroethane	0.5	U	6		4		~~3~~	-	6	
Cyclohexane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Carbon Tetrachloride	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Trichloroethene	8		10		~~27~~ →		26		10	
Methylcyclohexane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
cis-1,3-Dichloropropene	0.5	UJ	0.5	UJ	0.5	UJ	~~1~~	~~U~~	0.5	U
4-Methyl-2-pentanone	5	U	5	U	5	U	~~10~~	~~U~~	5	U
Toluene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
trans-1,3-Dichloropropene	0.5	UJ	0.5	UJ	0.5	UJ	~~1~~	~~U~~	0.5	U
1,1,2-Trichloroethane	0.5	UJ	0.5	UJ	2	J	~~2~~	-	0.5	U

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | B
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

Sample Number :	E1YW4		E1YW5		E1YW6		E1YW6DL (Diluted)		E1YW8 (Field duplicate of MW-2)	
Sampling Location :	MW-1		MW-2		MW-3		MW-3		MW-5	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		2.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	0.5	U	2		2		~~2~~	-	2	
2-Hexanone	5	U	5	U	5	U	~~10~~	~~U~~	5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	UJ	~~1~~	~~U~~	0.5	U
1,2-Dibromoethane	0.5	U	0.5	U	0.5	UJ	~~1~~	~~U~~	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Xylenes (total)	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
Bromoform	0.5	U	0.5	U	0.5	UJ	~~1~~	~~U~~	0.5	U
Isopropylbenzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,3-Dichlorobenzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,4-Dichlorobenzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,2-Dichlorobenzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,2-Dibromo-3-chloropropane	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | A
Site : TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : MITKEM | Number of Water Samples : 16
Reviewer : S. Tobin
Date : 07/31/2002

	Trip blank		Rinsate		Background					
Sample Number :	E1YW9		E1YX0		E1YX1		E1YX2		E1YX3	
Sampling Location :	MW-6		MW-7		PW-1		PW-2		PW-3	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/01/2002		07/01/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :					08:45				09:20	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Acetone	25		23		5	U	5	U	5	U
Carbon Disulfide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
trans-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butyl Methyl Ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	18		18		5	U	5	U	5	U
Bromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylcyclohexane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U
4-Methyl-2-pentanone	5	U	5	U	5	U	5	U	5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | B
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

	Trip blank		Rinsate		Background					
Sample Number :	E1YW9		E1YX0		E1YX1		E1YX2		E1YX3	
Sampling Location :	MW-6		MW-7		PW-1		PW-2		PW-3	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/01/2002		07/01/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :					08:45				09:20	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Hexanone	5	U	5	U	5	U	5	U	5	U
Dibromochloromethane	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylenes (total)	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U
Isopropylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-chloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | A
Site : TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : MITKEM | Number of Water Samples : 16
Reviewer : S. Tobin
Date : 07/31/2002

									Lab QC	
Sample Number :	E1YX4		E1YX5		E1YX6		E1YX9		E1YX9MS	
Sampling Location :	PW-4		PW-5		PW-6		PW-9		PW-9	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :					09:00					
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U	6	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Acetone	5	U	5	U	5	U	5	U	5	U
Carbon Disulfide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene Chloride	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
trans-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butyl Methyl Ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.6	
cis-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	5	U	5	U	5	U	5	U	5	U
Bromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	5		6	
Cyclohexane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon Tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	5	
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	
Trichloroethene	0.5	U	0.5	U	0.5	U	0.5	U	5	
Methylcyclohexane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
4-Methyl-2-pentanone	5	U	5	U	5	U	5	U	5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	5	
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.9		1	

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | B
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

									Lab QC	
Sample Number :	E1YX4		E1YX5		E1YX6		E1YX9		E1YX9MS	
Sampling Location :	PW-4		PW-5		PW-6		PW-9		PW-9	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :					09:00					
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Hexanone	5	U	5	U	5	U	5	U	5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	5	
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylenes (total)	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-chloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | A
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

					Diluted			Diluted	
	Lab QC								
Sample Number :	E1YX9MSD		E1YY0		E1YY0DL		E1YY1	E1YY1DL	
Sampling Location :	PW-9		PW-10		PW-10		PW-11	PW-11	
Matrix :	Water		Water		Water		Water	Water	
Units :	ug/L		ug/L		ug/L		ug/L	ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002	07/02/2002	
Time Sampled :									
%Moisture :	N/A		N/A		N/A		N/A	N/A	
pH :									
Dilution Factor :	1.0		1.0		2.5		1.0	2.5	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Chloromethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Vinyl Chloride	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Bromomethane	0.5	UJ	0.5	U	~~1~~	~~UJ~~	0.5	U	~~1~~	~~UJ~~
Chloroethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Trichlorofluoromethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,1-Dichloroethene	6		9		~~8~~	-	8		~~8~~	-
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Acetone	5	U	5	U	~~13~~	~~U~~	5	U	~~13~~	~~U~~
Carbon Disulfide	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Methyl Acetate	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Methylene Chloride	0.5	UJ	0.5	UJ	~~1~~	~~UJ~~	0.5	UJ	~~1~~	~~UJ~~
trans-1,2-Dichloroethene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
tert-Butyl Methyl Ether	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,1-Dichloroethane	0.6		1		~~1~~	~~U~~	1		~~1~~	~~U~~
cis-1,2-Dichloroethene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
2-Butanone	5	U	5	U	~~13~~	~~U~~	5	U	~~13~~	~~U~~
Bromochloromethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Chloroform	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,1,1-Trichloroethane	6		~~39~~ ▶		35		~~37~~ ▶		39	
Cyclohexane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Carbon Tetrachloride	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Benzene	6		0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,2-Dichloroethane	0.6		0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Trichloroethene	5		0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Methylcyclohexane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,2-Dichloropropane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Bromodichloromethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
cis-1,3-Dichloropropene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
4-Methyl-2-pentanone	5	U	5	U	~~13~~	~~U~~	5	U	~~13~~	~~U~~
Toluene	6		0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
trans-1,3-Dichloropropene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,1,2-Trichloroethane	1		0.7		~~1~~	~~U~~	0.7		~~1~~	~~U~~

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | B
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

	Lab QC				Diluted				Diluted	
Sample Number :	E1YX9MSD		E1YY0		E1YY0DL		E1YY1		E1YY1DL	
Sampling Location :	PW-9		PW-10		PW-10		PW-11		PW-11	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		2.5		1.0		2.5	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
2-Hexanone	5	U	5	U	~~13~~	~~U~~	5	U	~~13~~	~~U~~
Dibromochloromethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,2-Dibromoethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Chlorobenzene	5		0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Ethylbenzene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Xylenes (total)	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Styrene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Bromoform	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
Isopropylbenzene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,3-Dichlorobenzene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,4-Dichlorobenzene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,2-Dichlorobenzene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,2-Dibromo-3-chloropropane	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,2,4-Trichlorobenzene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~
1,2,3-Trichlorobenzene	0.5	U	0.5	U	~~1~~	~~U~~	0.5	U	~~1~~	~~U~~

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | A
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

	Trip blank		Lab blank		Lab blank		Lab blank			
Sample Number :	E1YY2		VBLK2A		VBLK2Z		VHBLK2A			
Sampling Location :	PW-12									
Matrix :	Water		Water		Water		Water			
Units :	ug/L		ug/L		ug/L		ug/L			
Date Sampled :	07/02/2002									
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A			
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0			
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U		
Chloromethane	0.5	U	0.5	U	0.5	U	0.5	U		
Vinyl Chloride	0.5	U	0.5	U	0.5	U	0.5	U		
Bromomethane	0.5	UJ	0.5	UJ	0.5	U	0.5	UJ		
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U		
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U		
1,1-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	U	0.5	U	0.5	U	0.5	U		
Acetone	53		5	U	5	U	5	U		
Carbon Disulfide	0.5	U	0.5	U	0.5	U	0.5	U		
Methyl Acetate	0.5	U	0.5	U	0.5	U	0.5	U		
Methylene Chloride	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ		
trans-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U		
tert-Butyl Methyl Ether	0.5	U	0.5	U	0.5	U	0.5	U		
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U		
cis-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U		
2-Butanone	21		5	U	5	U	5	U		
Bromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U		
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U		
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U		
Cyclohexane	0.5	U	0.5	U	0.5	U	0.5	U		
Carbon Tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U		
Benzene	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U		
Trichloroethene	0.5	U	0.5	U	0.5	U	0.5	U		
Methylcyclohexane	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U		
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U		
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U		
4-Methyl-2-pentanone	5	U	5	U	5	U	5	U		
Toluene	0.5	U	0.5	U	0.5	U	0.5	U		
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U		
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U		

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | B
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

	Trip blank		Lab blank		Lab blank		Lab blank			
Sample Number :	E1YY2		VBLK2A		VBLK2Z		VHBLK2A			
Sampling Location :	PW-12									
Matrix :	Water		Water		Water		Water			
Units :	ug/L		ug/L		ug/L		ug/L			
Date Sampled :	07/02/2002									
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A			
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0			
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	0.5	U	0.5	U	0.5	U	0.5	U		
2-Hexanone	5	U	5	U	5	U	5	U		
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dibromoethane	0.5	U	0.5	U	0.5	U	0.5	U		
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U		
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U		
Xylenes (total)	0.5	U	0.5	U	0.5	U	0.5	U		
Styrene	0.5	U	0.5	U	0.5	U	0.5	U		
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U		
Isopropylbenzene	0.5	U	0.5	U	0.5	U	0.5	U		
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U		
1,3-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U		
1,4-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dibromo-3-chloropropane	0.5	U	0.5	U	0.5	U	0.5	U		
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U		
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U		

Analytical Results (Qualified Data)

Case #: 30665
Site :
Lab. :
Reviewer :
Date :

SDG : E1YW4
TARCO SOUTH (WI)
MITKEM
S. Tobin
07/31/2002

A
Number of Soil Samples : 0
Number of Water Samples : 16

Sample Number :	E1YW4		E1YW5		E1YW6		E1YW8		E1YX0	
Sampling Location :	MW-1		MW-2		MW-3		MW-5		MW-7	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	5	U	5	U	5	U	5	U	5	U
Phenol	5	U	5	U	5	U	5	U	5	
bis-(2-Chloroethyl) ether	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	5	U	5	U	5	U	5	U	5	U
2-Methylphenol	5	U	5	U	5	U	5	U	5	U
2,2'-oxybis(1-Chloropropane)	5	U	5	U	5	U	5	U	5	U
Acetophenone	5	U	5	U	5	U	5	U	1	J
4-Methylphenol	5	U	5	U	5	U	5	U	5	U
N-Nitroso-di-n-propylamine	5	U	5	U	5	U	5	U	5	U
Hexachloroethane	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	5	U	5	U	5	U	5	U	5	U
Isophorone	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy)methane	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	5	U	5	U	5	U	5	U	5	U
Caprolactam	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
4-Chloro-3-methylphenol	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
1,1'-Biphenyl	5	U	5	U	5	U	5	U	5	U
2-Chloronaphthalene	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Dimethylphthalate	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Acenaphthene	5	U	5	U	5	U	5	U	5	U

Field duplicate of MW-2

Rinsate

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | B
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

Sample Number :	E1YW4		E1YW5		E1YW6		E1YW8		E1YX0	
Sampling Location :	MW-1		MW-2		MW-3		MW-5		MW-7	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	20	U	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
Diethylphthalate	5	U	5	U	5	U	5	U	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl-phenyl ether	5	U	5	U	5	U	5	U	5	U
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5	U
1,2,4,5-Tetrachlorobenzene	5	U	5	U	5	U	5	U	5	U
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	5	U	5	U	5	U	5	U	5	U
Atrazine	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	5	U	5	U	5	U	5	U	5	U
Phenanthrene	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U
Di-n-butylphthalate	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	5	U	5	U	5	U
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	5	U	5	U	5	U	5	U	5	U
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5	U
Chrysene	5	U	5	U	5	U	5	U	5	U
bis(2-Ethylhexyl)phthalate	5	U	5	U	5	U	5	U	9	
Di-n-octylphthalate	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzo(b)fluoranthene	5	U	5	U	5	U	5	UJ	5	U
Benzo(k)fluoranthene	5	U	5	U	5	U	5	UJ	5	U
Benzo(a)pyrene	5	U	5	U	5	U	5	UJ	5	U
Indeno(1,2,3-cd)pyrene	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Dibenzo(a,h)anthracene	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	UJ	5	U

Field duplicate of MW-2

Rinsate

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | A
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002
Background

Sample Number :	E1YX1		E1YX2		E1YX3		E1YX4		E1YX5	
Sampling Location :	PW-1		PW-2		PW-3		PW-4		PW-5	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :	08:45				09:20					
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	5	U	5	U	5	U	5	U	5	U
Phenol	5	U	5	U	5	U	5	U	5	U
bis-(2-Chloroethyl) ether	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	5	U	5	U	5	U	5	U	5	U
2-Methylphenol	5	U	5	U	5	U	5	U	5	U
2,2'-oxybis(1-Chloropropane)	5	U	5	U	5	U	5	U	5	U
Acetophenone	5	U	5	U	5	U	5	U	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U
N-Nitroso-di-n-propylamine	5	U	5	U	5	U	5	U	5	U
Hexachloroethane	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	5	U	5	U	5	U	5	U	5	U
Isophorone	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy)methane	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	5	U	5	U	5	U	5	U	5	U
Caprolactam	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
4-Chloro-3-methylphenol	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
1,1'-Biphenyl	5	U	5	U	5	U	5	U	5	U
2-Chloronaphthalene	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Dimethylphthalate	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Acenaphthene	5	U	5	U	5	U	5	U	5	U

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | B
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002
Background

Sample Number :	E1YX1		E1YX2		E1YX3		E1YX4		E1YX5	
Sampling Location :	PW-1		PW-2		PW-3		PW-4		PW-5	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :	08:45				09:20					
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	20	U	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
Diethylphthalate	5	U	5	U	5	U	5	U	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl-phenyl ether	5	U	5	U	5	U	5	U	5	U
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5	U
1,2,4,5-Tetrachlorobenzene	5	U	5	U	5	U	5	U	5	U
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	5	U	5	U	5	U	5	U	5	U
Atrazine	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	5	U	5	U	5	U	5	U	5	U
Phenanthrene	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U
Di-n-butylphthalate	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	5	U	5	U	5	U
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	5	U	5	U	5	U	5	U	5	U
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5	U
Chrysene	5	U	5	U	5	U	5	U	5	U
bis(2-Ethylhexyl)phthalate	5	U	5	U	5	U	5	U	5	U
Di-n-octylphthalate	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzo(b)fluoranthene	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-cd)pyrene	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Dibenzo(a,h)anthracene	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YW4 | A
Site : | TARCO SOUTH (WI) | Number of Soil Samples : 0
Lab. : | MITKEM | Number of Water Samples : 16
Reviewer : | S. Tobin
Date : | 07/31/2002

					Lab QC		Lab QC			
Sample Number :	E1YX6		E1YX9		E1YX9MS		E1YX9MSD		E1YY0	
Sampling Location :	PW-6		PW-9		PW-9		PW-9		PW-10	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :	09:00									
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	5	U	5	U	5	U	5	U	5	U
Phenol	5	U	5	U	41		45		5	U
bis-(2-Chloroethyl) ether	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	5	U	5	U	41		44		5	U
2-Methylphenol	5	U	5	U	5	U	5	U	5	U
2,2'-oxybis(1-Chloropropane)	5	U	5	U	5	U	5	U	5	U
Acetophenone	5	U	5	U	5	U	5	U	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U
N-Nitroso-di-n-propylamine	5	U	5	U	13		16		5	U
Hexachloroethane	5	U	5	U	5	U	5	U	5	U
Nitrobenzene	5	U	5	U	5	U	5	U	5	U
Isophorone	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroethoxy)methane	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	5	U	5	U	5	U	5	U	5	U
Hexachlorobutadiene	5	U	5	U	5	U	5	U	5	U
Caprolactam	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
4-Chloro-3-methylphenol	5	U	5	U	48		55		5	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	5	U	5	U	5	U	5	U	5	U
2,4,5-Trichlorophenol	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ
1,1'-Biphenyl	5	U	5	U	5	U	5	U	5	U
2-Chloronaphthalene	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Dimethylphthalate	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Acenaphthene	5	U	5	U	15		16		5	U

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YW4 B
Site : TARCO SOUTH (WI) Number of Soil Samples : 0
Lab. : MITKEM Number of Water Samples : 16
Reviewer : S. Tobin
Date : 07/31/2002

					Lab QC		Lab QC			
Sample Number :	E1YX6		E1YX9		E1YX9MS		E1YX9MSD		E1YY0	
Sampling Location :	PW-6		PW-9		PW-9		PW-9		PW-10	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :	09:00									
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	20	U	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	20	U	42		45		20	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrotoluene	5	U	5	U	16		17		5	U
Diethylphthalate	5	U	5	U	5	U	5	U	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl-phenyl ether	5	U	5	U	5	U	5	U	5	U
4-Nitroaniline	20	U	20	U	20	U	20	U	20	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U
N-Nitrosodiphenylamine	5	U	5	U	5	U	5	U	5	U
1,2,4,5-Tetrachlorobenzene	5	U	5	U	5	U	5	U	5	U
4-Bromophenyl-phenylether	5	U	5	U	5	U	5	U	5	U
Hexachlorobenzene	5	U	5	U	5	U	5	U	5	U
Atrazine	5	U	5	U	5	U	5	U	5	U
Pentachlorophenol	5	U	5	U	58		64		5	U
Phenanthrene	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U
Di-n-butylphthalate	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	20		22	J	5	U
Butylbenzylphthalate	5	U	5	U	5	U	5	U	5	U
3,3'-Dichlorobenzidine	5	U	5	U	5	U	5	U	5	U
Benzo(a)anthracene	5	U	5	U	5	U	5	U	5	U
Chrysene	5	U	5	U	5	U	5	U	5	U
bis(2-Ethylhexyl)phthalate	5	U	5	U	5	U	5	U	5	U
Di-n-octylphthalate	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzo(b)fluoranthene	5	U	5	U	5	U	5	U	5	U
Benzo(k)fluoranthene	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-cd)pyrene	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Dibenzo(a,h)anthracene	5	UJ	5	UJ	5	UJ	5	UJ	5	UJ
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YW4 A
Site : TARCO SOUTH (WI) Number of Soil Samples : 0
Lab. : MITKEM Number of Water Samples : 16
Reviewer : S. Tobin
Date : 07/31/2002

Lab blank

Sample Number :	E1YY1		SBLK1M							
Sampling Location :	PW-11									
Matrix :	Water		Water							
Units :	ug/L		ug/L							
Date Sampled :	07/02/2002									
Time Sampled :										
%Moisture :	N/A		N/A							
pH :										
Dilution Factor :	1.0		1.0							
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	5	U	5	U						
Phenol	5	U	5	U						
bis-(2-Chloroethyl) ether	5	U	5	U						
2-Chlorophenol	5	U	5	U						
2-Methylphenol	5	U	5	U						
2,2'-oxybis(1-Chloropropane)	5	U	5	U						
Acetophenone	5	U	5	U						
4-Methylphenol	5	U	5	U						
N-Nitroso-di-n-propylamine	5	U	5	U						
Hexachloroethane	5	U	5	U						
Nitrobenzene	5	U	5	U						
Isophorone	5	U	5	U						
2-Nitrophenol	5	U	5	U						
2,4-Dimethylphenol	5	U	5	U						
bis(2-Chloroethoxy)methane	5	U	5	U						
2,4-Dichlorophenol	5	U	5	U						
Naphthalene	5	U	5	U						
4-Chloroaniline	5	U	5	U						
Hexachlorobutadiene	5	U	5	U						
Caprolactam	5	UJ	5	UJ						
4-Chloro-3-methylphenol	5	U	5	U						
2-Methylnaphthalene	5	U	5	U						
Hexachlorocyclopentadiene	5	U	5	U						
2,4,6-Trichlorophenol	5	U	5	U						
2,4,5-Trichlorophenol	20	UJ	20	UJ						
1,1'-Biphenyl	5	U	5	U						
2-Chloronaphthalene	5	U	5	U						
2-Nitroaniline	20	U	20	U						
Dimethylphthalate	5	U	5	U						
2,6-Dinitrotoluene	5	U	5	U						
Acenaphthylene	5	U	5	U						
3-Nitroaniline	20	U	20	U						
Acenaphthene	5	U	5	U						

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YW4 B
Site : TARCO SOUTH (WI) Number of Soil Samples : 0
Lab. : MITKEM Number of Water Samples : 16
Reviewer : S. Tobin
Date : 07/31/2002

			Lab blank							
Sample Number :	E1YY1		SBLK1M							
Sampling Location :	PW-11									
Matrix :	Water		Water							
Units :	ug/L		ug/L							
Date Sampled :	07/02/2002									
Time Sampled :										
%Moisture :	N/A		N/A							
pH :										
Dilution Factor :	1.0		1.0							
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	20	U	20	U						
4-Nitrophenol	20	U	20	U						
Dibenzofuran	5	U	5	U						
2,4-Dinitrotoluene	5	U	5	U						
Diethylphthalate	5	U	5	U						
Fluorene	5	U	5	U						
4-Chlorophenyl-phenyl ether	5	U	5	U						
4-Nitroaniline	20	U	20	U						
4,6-Dinitro-2-methylphenol	20	U	20	U						
N-Nitrosodiphenylamine	5	U	5	U						
1,2,4,5-Tetrachlorobenzene	5	U	5	U						
4-Bromophenyl-phenylether	5	U	5	U						
Hexachlorobenzene	5	U	5	U						
Atrazine	5	U	5	U						
Pentachlorophenol	5	U	5	U						
Phenanthrene	5	U	5	U						
Anthracene	5	U	5	U						
Di-n-butylphthalate	5	U	5	U						
Fluoranthene	5	U	5	U						
Pyrene	5	U	5	U						
Butylbenzylphthalate	5	U	5	U						
3,3'-Dichlorobenzidine	5	U	5	U						
Benzo(a)anthracene	5	U	5	U						
Chrysene	5	U	5	U						
bis(2-Ethylhexyl)phthalate	5	U	5	U						
Di-n-octylphthalate	5	UJ	5	UJ						
Benzo(b)fluoranthene	5	U	5	U						
Benzo(k)fluoranthene	5	U	5	U						
Benzo(a)pyrene	5	U	5	U						
Indeno(1,2,3-cd)pyrene	5	UJ	5	UJ						
Dibenzo(a,h)anthracene	5	UJ	5	UJ						
Benzo(g,h,i)perylene	5	U	5	U						

Analytical Results (Qualified Data)

Case #: 30665
Site :
Lab. :
Reviewer :
Date :

SDG : E1YW4
TARCO SOUTH (WI)
MITKEM
S. Tobin
07/31/2002

Number of Soil Samples : 0
Number of Water Samples : 16

Sample Number :	E1YW4		E1YW5		E1YW6		E1YW8		E1YX0	
Sampling Location :	MW-1		MW-2		MW-3		MW-5		MW-7	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :										
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
beta-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
delta-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
gamma-BHC (Lindane)	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Heptachlor	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Aldrin	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Heptachlor epoxide	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Endosulfan I	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Dieldrin	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDE	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endrin	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endosulfan II	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDD	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endosulfan sulfate	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDT	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Methoxychlor	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endrin ketone	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endrin aldehyde	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
alpha-Chlordane	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
gamma-Chlordane	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Toxaphene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1016	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1221	0.40	U	0.40	U	0.40	U	0.40	U	0.40	U
Aroclor-1232	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1242	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1248	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1254	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1260	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U

Field duplicate of MW-2

Rinsate

Analytical Results (Qualified Data)

Case #: 30665
Site :
Lab. :
Reviewer :
Date :

SDG : E1YW4
TARCO SOUTH (WI)
MITKEM
S. Tobin
07/31/2002
Background

Number of Soil Samples : 0
Number of Water Samples : 16

Sample Number :	E1YX1		E1YX2		E1YX3		E1YX4		E1YX5	
Sampling Location :	PW-1		PW-2		PW-3		PW-4		PW-5	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :	08:45				09:20					
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
beta-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
delta-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
gamma-BHC (Lindane)	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Heptachlor	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Aldrin	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Heptachlor epoxide	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Endosulfan I	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Dieldrin	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDE	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endrin	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endosulfan II	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDD	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endosulfan sulfate	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDT	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Methoxychlor	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endrin ketone	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endrin aldehyde	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
alpha-Chlordane	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
gamma-Chlordane	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Toxaphene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1016	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1221	0.40	U	0.40	U	0.40	U	0.40	U	0.40	U
Aroclor-1232	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1242	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1248	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1254	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1260	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U

Analytical Results (Qualified Data)

Case #: 30665
Site :
Lab. :
Reviewer :
Date :

SDG : E1YW4
TARCO SOUTH (WI)
MITKEM
S. Tobin
07/31/2002

Number of Soil Samples : 0
Number of Water Samples : 16

Sample Number :	E1YX6		E1YX9		E1YX9MS		E1YX9MSD		E1YY0	
					Lab QC		Lab QC			
Sampling Location :	PW-6		PW-9		PW-9		PW-9		PW-10	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/02/2002		07/02/2002		07/02/2002		07/02/2002		07/02/2002	
Time Sampled :	09:00									
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
beta-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
delta-BHC	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
gamma-BHC (Lindane)	0.010	U	0.010	U	0.10		0.098		0.010	U
Heptachlor	0.010	U	0.010	U	0.10		0.096		0.010	U
Aldrin	0.010	U	0.010	U	0.090		0.086		0.010	U
Heptachlor epoxide	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Endosulfan I	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Dieldrin	0.020	U	0.020	U	0.18		0.18		0.020	U
4,4'-DDE	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endrin	0.020	U	0.020	U	0.20		0.21		0.020	U
Endosulfan II	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
4,4'-DDD	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endosulfan sulfate	0.020	U	0.020	U	0.020	U	0.020	U	0.032	J
4,4'-DDT	0.020	U	0.020	U	0.17		0.18		0.020	U
Methoxychlor	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endrin ketone	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
Endrin aldehyde	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U
alpha-Chlordane	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
gamma-Chlordane	0.010	U	0.010	U	0.010	U	0.010	U	0.010	U
Toxaphene	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1016	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1221	0.40	U	0.40	U	0.40	U	0.40	U	0.40	U
Aroclor-1232	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1242	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1248	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1254	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Aroclor-1260	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YW4
Site : TARCO SOUTH (WI) Number of Soil Samples : 0
Lab. : MITKEM Number of Water Samples : 16
Reviewer : S. Tobin
Date : 07/31/2002

Lab blank

Sample Number :	E1YY1		PBLK02							
Sampling Location :	PW-11									
Matrix :	Water		Water							
Units :	ug/L		ug/L							
Date Sampled :	07/02/2002									
Time Sampled :										
%Moisture :	N/A		N/A							
pH :										
Dilution Factor :	1.0		1.0							
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.010	U	0.010	U						
beta-BHC	0.010	U	0.010	U						
delta-BHC	0.010	U	0.010	U						
gamma-BHC (Lindane)	0.010	U	0.010	U						
Heptachlor	0.010	U	0.010	U						
Aldrin	0.010	U	0.010	U						
Heptachlor epoxide	0.010	U	0.010	U						
Endosulfan I	0.010	U	0.010	U						
Dieldrin	0.020	U	0.020	U						
4,4'-DDE	0.020	U	0.020	U						
Endrin	0.020	U	0.020	U						
Endosulfan II	0.020	U	0.020	U						
4,4'-DDD	0.020	U	0.020	U						
Endosulfan sulfate	0.020	U	0.020	U						
4,4'-DDT	0.020	U	0.020	U						
Methoxychlor	0.10	U	0.10	U						
Endrin ketone	0.020	U	0.020	U						
Endrin aldehyde	0.020	U	0.020	U						
alpha-Chlordane	0.010	U	0.010	U						
gamma-Chlordane	0.010	U	0.010	U						
Toxaphene	1.0	U	1.0	U						
Aroclor-1016	0.20	U	0.20	U						
Aroclor-1221	0.40	U	0.40	U						
Aroclor-1232	0.20	U	0.20	U						
Aroclor-1242	0.20	U	0.20	U						
Aroclor-1248	0.20	U	0.20	U						
Aroclor-1254	0.20	U	0.20	U						
Aroclor-1260	0.20	U	0.20	U						

Analytical Results (Qualified Data)

Site : Tarco South
Number of Water Samples : 14
Lab. : CRL
Reviewer :
Sample Type

CRL Sample Number :		2002XJ02S01		2002XJ02S02		2002XJ02S03		2002XJ02D02		2002XJ02R01	
Sampling Location :		MW-1		MW-2		MW-3		MW-5		MW-7	
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :								Field duplicate of MW-2		Rinsate	
ANALYTE	Reporting Limit	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	44	65.7		65.1		60.6		54.6			U
ANTIMONY	4		U		U		U		U		U
ARSENIC	2	0.6	M	0.6	M	3.5			U		U
BARIUM	0.9	155		115		426		116		2.1	
BERYLLIUM	2.8		U		U		U		U		U
CADMIUM	0.3	0.1	M		U		U		U	0.1	M
CALCIUM	82	122000		87400		89500		88400		114	
CHROMIUM	0.9	0.8	MB	1.6	BJ		U	1.3	BJ		U
COBALT	4.2		U		U	2.6	M		U		U
COPPER	4.4		U		U		U		U		U
IRON	42		U		U	326		12.5	M		U
LEAD	2		U		U		U		U		U
MAGNESIUM	12	25900		20100		19300		20000		16.8	BJ
MANGANESE	8.6	3.9	M	6.1	M	3100		10.1			U
MERCURY	0.5		U		U		U		U		U
NICKEL	2.7	1.5	M	1.5	M	4.4		0.9	M		U
POTASSIUM	482	1240		1040		1240		901			U
SELENIUM	4		U		U		U		U		U
SILVER	1.7		U		U		U		U		U
SODIUM	368	32400		6090		9920		5990			U
THALLIUM	2		U		U		U		U		U
VANADIUM	17	8.5	MB	7.9	MB	7.2	MB	8.7	MB	5.4	MB
ZINC	36	10.9	M		U	12.1	M		U		U
CYANIDE	8		U		U		U		U		U

Analytical Results (Qualified Data)

Site : Tarco South
Lab. : CRL
Reviewer :
Sample Type Background

Sample Number :		2002XJ02S05		2002XJ02S06		2002XJ02S07		2002XJ02S08		2002XJ02S09	
Sampling Location :		PW-1		PW-2		PW-3		PW-4		PW-5	
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :											
ANALYTE	Reporting Limit	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	44	47.7		52.9		44		42.4		36.6	
ANTIMONY	4		U		U		U		U		U
ARSENIC	2	1.7	M	1.9	M	2.3		0.8	M	2.0	M
BARIUM	0.9	97.3		101		78.1		71.4		77.9	
BERYLLIUM	2.8		U		U		U		U		U
CADMIUM	0.3		U		U		U		U		U
CALCIUM	82	79200		76500		68600		70100		66000	
CHROMIUM	0.9	0.8	MB	0.6	MB	0.8	MB	0.4	MB	0.9	BJ
COBALT	4.2		U		U		U		U		U
COPPER	4.4		U	29.8		8.4	BJ		U	4.9	BJ
IRON	42		U	68.3		70.1		30.9	M	33.9	M
LEAD	2	2.4		2.0		1.1	M	0.7	M		U
MAGNESIUM	12	21800		21600		15100		15800		15900	
MANGANESE	8.6		U		U		U		U		U
MERCURY	0.5		U		U		U		U		U
NICKEL	2.7	1.3	M	1.5	M	1.1	M	1.4	M	1.5	M
POTASSIUM	482	1030		1240		951		1100		1040	
SELENIUM	4		U		U		U		U		U
SILVER	1.7		U		U		U		U		U
SODIUM	368	7370		9610		10700		26700		21700	
THALLIUM	2		U		U		U		U		U
VANADIUM	17	9	MB	8.7	MB	9.7	MB	7.8	MB	7.5	MB
ZINC	36		U	192		55		120		18.7	M
CYANIDE	8		U		U		U		U		U

Analytical Results (Qualified Data)

Site : Tarco South
Lab. : CRL
Reviewer :
Sample Type — Field duplicate of PW-6

CRL Sample Number :		2002XJ02S10		2002XJ02S13		2002XJ02S14		2002XJ02D10			
Sampling Location :		PW-6		PW-9		PW-10		PW-11			
Matrix :		Water		Water		Water		Water			
Units :		ug/L		ug/L		ug/L		ug/L			
Date Sampled :											
ANALYTE	Reporting Limit	Result	Flag	Result	Flag	Result	Flag	Result	Flag		
ALUMINUM	44	49.2		33.3	M	45.1		38.9	M		
ANTIMONY	4		U		U		U		U		
ARSENIC	2	1.2	M	1.8	M	1.7	M	2.0			
BARIUM	0.9	74.4		81.6		77.6		80.5			
BERYLLIUM	2.8		U		U		U		U		
CADMIUM	0.3		U	0.1	M		U		U		
CALCIUM	82	70000		66000		71900		72000			
CHROMIUM	0.9	0.9	MB	1	BJ	0.8	MB	1	BJ		
COBALT	4.2		U		U		U		U		
COPPER	4.4	8	BJ		U		U		U		
IRON	42	60		31.8	M	37.6	M	38	M		
LEAD	2	0.9	M	4.3		0.7	M	0.7	M		
MAGNESIUM	12	17000		15500		15900		16300			
MANGANESE	8.6		U		U		U		U		
MERCURY	0.5		U		U		U		U		
NICKEL	2.7	1.7	M	1.2	M	1.2	M	1.7	M		
POTASSIUM	482	992		841		7111		761			
SELENIUM	4		U		U		U		U		
SILVER	1.7		U		U		U		U		
SODIUM	368	10500		3600		3920		4030			
THALLIUM	2		U		U		U		U		
VANADIUM	17	7.6	MB	8.8	MB	8	MB	7.2	MB		
ZINC	36	105		70.2		111		114			
CYANIDE	8		U		U		U		U		

APPENDIX B

Analytical Results Report
Soil Data

Analytical Results (Qualified Data)

Case #: 30665 | SDG : E1YT8 | A
Site : | TARCO SOUTH | Number of Soil Samples : 6
Lab. : | ENVSYS | Number of Water Samples : 0
Reviewer :
Date :

	Background				Lab QC		Lab QC			
Sample Number :	E1YT8		E1YT9		E1YT9MS		E1YT9MSD		E1YW0	
Sampling Location :	SS-1		SS-2		SS-2		SS-2		SS-3	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :	00:00		00:00		00:00		00:00		00:00	
%Moisture :	22		6		6		6		25	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	14	UJ	11	UJ	11	UJ	11	UJ	14	UJ
Chloromethane	14	U	11	U	11	U	11	U	14	U
Vinyl Chloride	14	U	11	U	11	U	11	U	14	U
Bromomethane	14	U	11	U	11	U	11	U	14	U
Chloroethane	14	UJ	11	UJ	11	UJ	11	UJ	14	UJ
Trichlorofluoromethane	14	U	11	U	11	U	11	U	14	U
1,1-Dichloroethene	14	U	11	UJ	31		30		14	U
1,1,2-Trichloro-1,2,2-trifluoroethane	14	UJ	11	UJ	11	UJ	11	UJ	14	UJ
Acetone	24	UJ	22	UJ	22	UJ	60	UJ	19	UJ
Carbon Disulfide	14	U	11	U	11	U	11	U	14	U
Methyl Acetate	14	U	11	U	11	U	11	U	14	U
Methylene Chloride	14	U	11	U	11	U	11	U	14	U
trans-1,2-Dichloroethene	14	U	11	U	11	U	11	U	14	U
Methyl tert-Butyl Ether	14	U	11	U	11	U	11	U	14	U
1,1-Dichloroethane	14	U	11	U	11	U	11	U	14	U
cis-1,2-Dichloroethene	14	U	11	U	11	U	11	U	14	U
2-Butanone	14	UJ	11	UJ	11	UJ	11	UJ	14	UJ
Chloroform	14	U	11	U	11	U	11	U	14	U
1,1,1-Trichloroethane	14	U	11	U	11	U	11	U	14	U
Cyclohexane	14	U	11	U	11	U	11	U	14	U
Carbon Tetrachloride	14	U	11	U	11	U	11	U	14	U
Benzene	14	U	11	UJ	34		33		14	U
1,2-Dichloroethane	14	UJ	11	UJ	11	UJ	11	UJ	14	UJ
Trichloroethene	14	U	11	UJ	30		47		14	U
Methylcyclohexane	14	U	11	U	11	U	11	U	14	U
1,2-Dichloropropane	14	U	11	U	11	U	11	U	14	U
Bromodichloromethane	14	U	11	U	11	U	11	U	14	U
cis-1,3-Dichloropropene	14	U	11	U	11	U	11	U	14	U
4-Methyl-2-pentanone	14	U	11	U	11	U	11	U	14	U
Toluene	14	U	11	UJ	34		34		14	U
trans-1,3-Dichloropropene	14	U	11	U	11	U	11	U	14	U
1,1,2-Trichloroethane	14	U	11	U	11	U	11	U	14	U
Tetrachloroethene	14	U	11	U	11	U	11	U	14	U

Analytical Results (Qualified Data)

Case #: 30665
Site :
Lab. :
Reviewer :
Date :

SDG : E1YT8

TARCO SOUTH

ENVSYS

B

	Background				Lab QC		Lab QC			
Sample Number :	E1YT8		E1YT9		E1YT9MS		E1YT9MSD		E1YW0	
Sampling Location :	SS-1		SS-2		SS-2		SS-2		SS-3	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :	00:00		00:00		00:00		00:00		00:00	
%Moisture :	22		6		6		6		25	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone	14	U	11	U	11	U	11	U	14	U
Dibromochloromethane	14	U	11	U	11	U	11	U	14	U
1,2-Dibromoethane	14	U	11	U	11	U	11	U	14	U
Chlorobenzene	14	U	11	UJ	28		27		14	U
Ethylbenzene	14	U	11	U	11	U	11	U	14	U
Xylenes (total)	14	U	11	U	11	U	11	U	14	U
Styrene	14	U	11	U	11	U	11	U	14	U
Bromoform	14	U	11	U	11	U	11	U	14	U
Isopropylbenzene	14	U	11	U	11	U	11	U	14	U
1,1,2,2-Tetrachloroethane	14	U	11	U	11	U	11	U	14	U
1,3-Dichlorobenzene	14	U	11	U	11	U	11	U	14	U
1,4-Dichlorobenzene	14	U	11	U	11	U	11	U	14	U
1,2-Dichlorobenzene	14	U	11	U	11	U	11	U	14	U
1,2-Dibromo-3-chloropropane	14	R	11	R	11	R	11	R	14	R
1,2,4-Trichlorobenzene	14	U	11	U	11	U	11	U	14	U

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8 A
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

Sample Number :	E1YW1		E1YW2		E1YW3		VBLKFS		VBLKF2	
					Field duplicate of SS-3		Lab blank		Lab blank	
Sampling Location :	SS-4		SS-5		SS-6					
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002					
Time Sampled :	00:00		00:00		00:00					
%Moisture :	8		16		13		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	11	UJ	11	UJ	13	UJ	10	U	10	UJ
Chloromethane	11	U	11	U	13	U	10	U	10	U
Vinyl Chloride	11	U	11	U	13	U	10	U	10	U
Bromomethane	11	U	11	U	13	U	10	U	10	U
Chloroethane	11	UJ	11	UJ	13	UJ	10	U	10	UJ
Trichlorofluoromethane	11	U	11	U	13	U	10	U	10	U
1,1-Dichloroethene	11	U	11	U	13	U	10	U	10	U
1,1,2-Trichloro-1,2,2-trifluoroethane	11	UJ	11	UJ	13	UJ	10	U	10	UJ
Acetone	21	UJ	11	UJ	13	UJ	2	J	4	J
Carbon Disulfide	11	U	11	U	13	U	10	U	10	U
Methyl Acetate	11	U	11	U	13	U	10	U	10	U
Methylene Chloride	11	U	11	U	13	U	3	J	2	J
trans-1,2-Dichloroethene	11	U	11	U	13	U	10	U	10	U
Methyl tert-Butyl Ether	11	U	11	U	13	U	10	U	10	U
1,1-Dichloroethane	11	U	11	U	13	U	10	U	10	U
cis-1,2-Dichloroethene	11	U	11	U	13	U	10	U	10	U
2-Butanone	11	UJ	11	UJ	13	UJ	10	U	10	UJ
Chloroform	11	U	11	U	13	U	10	U	10	U
1,1,1-Trichloroethane	11	U	11	U	13	U	10	UJ	10	U
Cyclohexane	11	U	11	U	13	U	10	U	10	U
Carbon Tetrachloride	11	U	11	U	13	U	10	U	10	U
Benzene	11	U	11	U	13	U	10	U	10	U
1,2-Dichloroethane	11	UJ	11	UJ	13	UJ	10	U	10	UJ
Trichloroethene	11	U	11	U	13	U	10	U	10	U
Methylcyclohexane	11	U	11	U	13	U	10	U	10	U
1,2-Dichloropropane	11	U	11	U	13	U	10	U	10	U
Bromodichloromethane	11	U	11	U	13	U	10	U	10	U
cis-1,3-Dichloropropene	11	U	11	U	13	U	10	U	10	U
4-Methyl-2-pentanone	11	U	11	U	13	U	10	U	10	U
Toluene	11	U	11	U	13	U	10	U	2	J
trans-1,3-Dichloropropene	11	U	11	U	13	U	10	U	10	U
1,1,2-Trichloroethane	11	U	11	U	13	U	10	U	10	U
Tetrachloroethene	11	U	11	U	13	U	10	U	10	U

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8 B
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

					Field duplicate of SS-3		Lab blank		Lab blank	
Sample Number :	E1YW1		E1YW2		E1YW3		VBLKFS		VBLKF2	
Sampling Location :	SS-4		SS-5		SS-6					
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002					
Time Sampled :	00:00		00:00		00:00					
%Moisture :	8		16		13		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone	11	U	11	U	13	U	10	U	10	U
Dibromochloromethane	11	U	11	U	13	U	10	U	10	U
1,2-Dibromoethane	11	U	11	U	13	U	10	U	10	U
Chlorobenzene	11	U	11	U	13	U	10	U	10	U
Ethylbenzene	11	U	11	U	13	U	10	U	10	U
Xylenes (total)	11	U	11	U	13	U	10	U	10	U
Styrene	11	U	11	U	13	U	10	U	10	U
Bromoform	11	U	11	U	13	U	10	U	10	U
Isopropylbenzene	11	U	11	U	13	U	10	U	10	U
1,1,2,2-Tetrachloroethane	11	U	11	U	13	U	10	U	10	U
1,3-Dichlorobenzene	11	U	11	U	13	U	10	U	10	U
1,4-Dichlorobenzene	11	U	11	U	13	U	10	U	10	U
1,2-Dichlorobenzene	11	U	11	U	13	U	10	U	10	U
1,2-Dibromo-3-chloropropane	11	R	11	R	13	R	10	R	10	R
1,2,4-Trichlorobenzene	11	U	11	U	13	U	10	U	10	U

Analytical Results (Qualified Data)

Case #: 30665
Site :
Lab. :
Reviewer :
Date :

SDG : E1YT8
TARCO SOUTH
ENVSYS

A

	Lab blank									
Sample Number :	VHBLKFS									
Sampling Location :										
Matrix :	Soil									
Units :	ug/Kg									
Date Sampled :										
Time Sampled :										
%Moisture :	0									
pH :										
Dilution Factor :	1.0									
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	10	U								
Chloromethane	10	U								
Vinyl Chloride	10	U								
Bromomethane	10	U								
Chloroethane	10	U								
Trichlorofluoromethane	10	U								
1,1-Dichloroethene	10	U								
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U								
Acetone	10	U								
Carbon Disulfide	10	U								
Methyl Acetate	10	U								
Methylene Chloride	10	U								
trans-1,2-Dichloroethene	10	U								
Methyl tert-Butyl Ether	10	U								
1,1-Dichloroethane	10	U								
cis-1,2-Dichloroethene	10	U								
2-Butanone	10	U								
Chloroform	10	U								
1,1,1-Trichloroethane	10	UJ								
Cyclohexane	10	U								
Carbon Tetrachloride	10	U								
Benzene	10	U								
1,2-Dichloroethane	10	U								
Trichloroethene	10	U								
Methylcyclohexane	10	U								
1,2-Dichloropropane	10	U								
Bromodichloromethane	10	U								
cis-1,3-Dichloropropene	10	U								
4-Methyl-2-pentanone	10	U								
Toluene	10	U								
trans-1,3-Dichloropropene	10	U								
1,1,2-Trichloroethane	10	U								
Tetrachloroethene	10	U								

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8 B
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

Lab blank

Sample Number :	VHBLKFS									
Sampling Location :										
Matrix :	Soil									
Units :	ug/Kg									
Date Sampled :										
Time Sampled :										
%Moisture :	0									
pH :										
Dilution Factor :	1.0									
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone	10	U								
Dibromochloromethane	10	U								
1,2-Dibromoethane	10	U								
Chlorobenzene	10	U								
Ethylbenzene	10	U								
Xylenes (total)	10	U								
Styrene	10	U								
Bromoform	10	U								
Isopropylbenzene	10	U								
1,1,2,2-Tetrachloroethane	10	U								
1,3-Dichlorobenzene	10	U								
1,4-Dichlorobenzene	10	U								
1,2-Dichlorobenzene	10	U								
1,2-Dibromo-3-chloropropane	10	R								
1,2,4-Trichlorobenzene	10	U								

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8 A
Site : TARCO SOUTH Number of Soil Samples : 6
Lab. : ENVSYS Number of Water Samples : 0
Reviewer :
Date :

	Background				Diluted		Lab QC		Lab QC	
Sample Number :	E1YT8		E1YT9		E1YT9DL		E1YT9MS		E1YT9MSD	
Sampling Location :	SS-1		SS-2		SS-2		SS-2		SS-2	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :	00:00		00:00		00:00		00:00		00:00	
%Moisture :	22		6		6		6		6	
pH :	6.6		6.1		6.1		6.1		6.1	
Dilution Factor :	1.0		1.0		25.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	420	UJ	350	UJ	~~8800~~	~~UJ~~	120	J	260	J
Phenol	420	U	1200		~~8800~~	~~U~~	2500		2700	
bis-(2-Chloroethyl) ether	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2-Chlorophenol	420	U	350	U	~~8800~~	~~U~~	1400		1500	
2-Methylphenol	420	U	200	J	~~8800~~	~~U~~	210	J	210	J
2,2'-oxybis(1-Chloropropane)	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Acetophenone	420	U	270	J	~~8800~~	~~U~~	270	J	230	J
4-Methylphenol	420	U	500		~~8800~~	~~U~~	530		510	
N-Nitroso-di-n-propylamine	420	U	350	U	~~8800~~	~~U~~	870		940	
Hexachloroethane	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Nitrobenzene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Isophorone	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2-Nitrophenol	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2,4-Dimethylphenol	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
bis(2-Chloroethoxy)methane	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2,4-Dichlorophenol	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Naphthalene	420	U	160	J	~~8800~~	~~U~~	150	J	130	J
4-Chloroaniline	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Hexachlorobutadiene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Caprolactam	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
4-Chloro-3-methylphenol	420	U	350	U	~~8800~~	~~U~~	1700		1900	
2-Methylnaphthalene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Hexachlorocyclopentadiene	420	UJ	350	UJ	~~8800~~	~~UJ~~	350	UJ	350	UJ
2,4,6-Trichlorophenol	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2,4,5-Trichlorophenol	1100	U	880	U	~~22000~~	~~U~~	880	U	880	U
1,1'-Biphenyl	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2-Chloronaphthalene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2-Nitroaniline	1100	U	880	U	~~22000~~	~~U~~	880	U	880	U
Dimethylphthalate	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2,6-Dinitrotoluene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Acenaphthylene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
3-Nitroaniline	1100	UJ	880	UJ	~~22000~~	~~UJ~~	880	UJ	880	UJ
Acenaphthene	420	U	350	U	~~8800~~	~~U~~	920		1000	

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8 B
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

	Background				Diluted		Lab QC		Lab QC	
Sample Number :	E1YT8		E1YT9		E1YT9DL		E1YT9MS		E1YT9MSD	
Sampling Location :	SS-1		SS-2		SS-2		SS-2		SS-2	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :	00:00		00:00		00:00		00:00		00:00	
%Moisture :	22		6		6		6		6	
pH :	6.6		6.1		6.1		6.1		6.1	
Dilution Factor :	1.0		1.0		25.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	1100	U	880	U	~~22000~~	~~U~~	880	U	880	U
4-Nitrophenol	1100	UJ	880	UJ	~~22000~~	~~UJ~~	2100	J	2200	J
Dibenzofuran	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
2,4-Dinitrotoluene	420	U	350	U	~~8800~~	~~U~~	1100		1100	
Diethylphthalate	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Fluorene	420	U	350	U	~~8800~~	~~U~~	59	J	350	U
4-Chlorophenyl-phenyl ether	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
4-Nitroaniline	1100	UJ	880	UJ	~~22000~~	~~UJ~~	880	UJ	880	UJ
4,6-Dinitro-2-methylphenol	1100	U	880	U	~~22000~~	~~U~~	880	U	880	U
N-Nitrosodiphenylamine	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
4-Bromophenyl-phenylether	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Hexachlorobenzene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Atrazine	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Pentachlorophenol	1100	U	880	U	~~22000~~	~~U~~	2400		2700	
Phenanthrene	420	U	690		~~8800~~	~~U~~	730		780	
Anthracene	420	U	180	J	~~8800~~	~~U~~	210	J	220	J
Carbazole	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Di-n-butylphthalate	420	U	~~28000~~ ▶		33000		29000		30000	
Fluoranthene	420	U	760		~~8800~~	~~U~~	840		880	
Pyrene	420	U	840		~~8800~~	~~U~~	2300		2300	
Butylbenzylphthalate	420	U	~~4000~~ ▶		44000		44000		41000	
3,3'-Dichlorobenzidine	420	UJ	350	UJ	~~8800~~	~~UJ~~	350	UJ	350	UJ
Benzo(a)anthracene	420	U	53	J	~~8800~~	~~U~~	59	J	60	J
Chrysene	420	U	130	J	~~8800~~	~~U~~	150	J	140	J
bis(2-Ethylhexyl)phthalate	420	U	640	U	~~8800~~	~~U~~	730	U	640	U
Di-n-octylphthalate	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Benzo(b)fluoranthene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Benzo(k)fluoranthene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Benzo(a)pyrene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Indeno(1,2,3-cd)pyrene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Dibenzo(a,h)anthracene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U
Benzo(g,h,i)perylene	420	U	350	U	~~8800~~	~~U~~	350	U	350	U

Analytical Results (Qualified Data)

Case #: 30665
Site :
Lab. :
Reviewer :
Date :

SDG : E1YT8
TARCO SOUTH
ENVSYS

A

			Diluted						Diluted	
Sample Number :	E1YW0		E1YW0DL		E1YW1		E1YW2		E1YW2DL	
Sampling Location :	SS-3		SS-3		SS-4		SS-5		SS-5	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :	00:00		00:00		00:00		00:00		00:00	
%Moisture :	25		25		8		16		16	
pH :	6.9		6.9		6.2		6.8		6.8	
Dilution Factor :	1.0		5.0		1.0		10.0		100.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	440	UJ	~~2200~~	~~UJ~~	360	UJ	3900	UJ	~~39000~~	~~UJ~~
Phenol	420	J	~~2200~~	~~U~~	110	J	7000		~~39000~~	~~U~~
bis-(2-Chloroethyl) ether	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2-Chlorophenol	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2-Methylphenol	440	U	~~2200~~	~~U~~	360	U	450	J	~~39000~~	~~U~~
2,2'-oxybis(1-Chloropropane)	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Acetophenone	500		~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
4-Methylphenol	310	J	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
N-Nitroso-di-n-propylamine	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Hexachloroethane	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Nitrobenzene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Isophorone	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2-Nitrophenol	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2,4-Dimethylphenol	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
bis(2-Chloroethoxy)methane	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2,4-Dichlorophenol	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Naphthalene	710		~~770~~	~~J~~	190	J	3900	U	~~39000~~	~~U~~
4-Chloroaniline	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Hexachlorobutadiene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Caprolactam	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
4-Chloro-3-methylphenol	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2-Methylnaphthalene	130	J	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Hexachlorocyclopentadiene	440	UJ	~~2200~~	~~UJ~~	360	UJ	3900	UJ	~~39000~~	~~UJ~~
2,4,6-Trichlorophenol	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2,4,5-Trichlorophenol	1100	U	~~5500~~	~~U~~	900	U	9900	U	~~99000~~	~~U~~
1,1'-Biphenyl	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2-Chloronaphthalene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2-Nitroaniline	1100	U	~~5500~~	~~U~~	900	U	9900	U	~~99000~~	~~U~~
Dimethylphthalate	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2,6-Dinitrotoluene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Acenaphthylene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
3-Nitroaniline	1100	UJ	~~5500~~	~~UJ~~	900	UJ	9900	UJ	~~99000~~	~~UJ~~
Acenaphthene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8 B
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

			Diluted						Diluted	
Sample Number :	E1YW0		E1YW0DL		E1YW1		E1YW2		E1YW2DL	
Sampling Location :	SS-3		SS-3		SS-4		SS-5		SS-5	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :	00:00		00:00		00:00		00:00		00:00	
%Moisture :	25		25		8		16		16	
pH :	6.9		6.9		6.2		6.8		6.8	
Dilution Factor :	1.0		5.0		1.0		10.0		100.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	1100	U	~~5500~~	~~U~~	900	U	9900	U	~~99000~~	~~U~~
4-Nitrophenol	1100	UJ	~~5500~~	~~UJ~~	900	UJ	9900	UJ	~~99000~~	~~UJ~~
Dibenzofuran	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
2,4-Dinitrotoluene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Diethylphthalate	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Fluorene	160	J	~~2200~~	~~U~~	41	J	3900	U	~~39000~~	~~U~~
4-Chlorophenyl-phenyl ether	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
4-Nitroaniline	1100	UJ	~~5500~~	~~UJ~~	900	UJ	9900	UJ	~~99000~~	~~UJ~~
4,6-Dinitro-2-methylphenol	1100	U	~~5500~~	~~U~~	900	U	9900	U	~~99000~~	~~U~~
N-Nitrosodiphenylamine	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
4-Bromophenyl-phenylether	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Hexachlorobenzene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Atrazine	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Pentachlorophenol	1100	U	~~5500~~	~~U~~	900	U	9900	U	~~99000~~	~~U~~
Phenanthrene	~~4000~~		3800	J	650		500	J	~~39000~~	~~U~~
Anthracene	180	J	~~290~~	~~J~~	71	J	3900	U	~~39000~~	~~U~~
Carbazole	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Di-n-butylphthalate	~~11000~~		11000	J	1200		~~8100~~		69000	
Fluoranthene	1100		~~990~~	~~J~~	230	J	550	J	~~39000~~	~~U~~
Pyrene	2100		~~1900~~	~~J~~	370		1000	J	~~39000~~	~~U~~
Butylbenzylphthalate	~~15000~~		14000	J	1700		~~120000~~		96000	
3,3'-Dichlorobenzidine	440	UJ	~~2200~~	~~UJ~~	360	UJ	3900	UJ	~~39000~~	~~UJ~~
Benzo(a)anthracene	140	J	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Chrysene	160	J	~~2200~~	~~U~~	360	U	490	J	~~39000~~	~~U~~
bis(2-Ethylhexyl)phthalate	650	U	~~2200~~	~~U~~	360	U	~~3800~~		39000	U
Di-n-octylphthalate	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Benzo(b)fluoranthene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Benzo(k)fluoranthene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Benzo(a)pyrene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Indeno(1,2,3-cd)pyrene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Dibenzo(a,h)anthracene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~
Benzo(g,h,i)perylene	440	U	~~2200~~	~~U~~	360	U	3900	U	~~39000~~	~~U~~

Analytical Results (Qualified Data)

A

Case #: 30665 SDG : E1YT8
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

Sample Number :	E1YW3		SBLK80							
Sampling Location :	SS-6									
Matrix :	Soil		Soil							
Units :	ug/Kg		ug/Kg							
Date Sampled :	07/01/2002									
Time Sampled :	00:00									
%Moisture :	13		N/A							
pH :	7.7									
Dilution Factor :	5.0		1.0							
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	1900	UJ	330	UJ						
Phenol	460	J	330	U						
bis-(2-Chloroethyl) ether	1900	U	330	U						
2-Chlorophenol	1900	U	330	U						
2-Methylphenol	1900	U	330	U						
2,2'-oxybis(1-Chloropropane)	1900	U	330	U						
Acetophenone	1100	J	330	U						
4-Methylphenol	1900	U	330	U						
N-Nitroso-di-n-propylamine	1900	U	330	U						
Hexachloroethane	1900	U	330	U						
Nitrobenzene	1900	U	330	U						
Isophorone	1900	U	330	U						
2-Nitrophenol	1900	U	330	U						
2,4-Dimethylphenol	1900	U	330	U						
bis(2-Chloroethoxy)methane	1900	U	330	U						
2,4-Dichlorophenol	1900	U	330	U						
Naphthalene	780	J	330	U						
4-Chloroaniline	1900	U	330	U						
Hexachlorobutadiene	1900	U	330	U						
Caprolactam	1900	U	330	U						
4-Chloro-3-methylphenol	1900	U	330	U						
2-Methylnaphthalene	1900	U	330	U						
Hexachlorocyclopentadiene	1900	UJ	330	UJ						
2,4,6-Trichlorophenol	1900	U	330	U						
2,4,5-Trichlorophenol	4800	U	830	U						
1,1'-Biphenyl	1900	U	330	U						
2-Chloronaphthalene	1900	U	330	U						
2-Nitroaniline	4800	U	830	U						
Dimethylphthalate	1900	U	330	U						
2,6-Dinitrotoluene	1900	U	330	U						
Acenaphthylene	1900	U	330	U						
3-Nitroaniline	4800	UJ	830	UJ						
Acenaphthene	1900	U	330	U						

Analytical Results (Qualified Data)

B

Case #: 30665 SDG : E1YT8
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

	Field duplicate of SS-3		Lab blank							
Sample Number :	E1YW3		SBLK80							
Sampling Location :	SS-6									
Matrix :	Soil		Soil							
Units :	ug/Kg		ug/Kg							
Date Sampled :	07/01/2002									
Time Sampled :	00:00									
%Moisture :	13		N/A							
pH :	7.7									
Dilution Factor :	5.0		1.0							
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	4800	U	830	U						
4-Nitrophenol	4800	UJ	830	UJ						
Dibenzofuran	1900	U	330	U						
2,4-Dinitrotoluene	1900	U	330	U						
Diethylphthalate	1900	U	330	U						
Fluorene	200	J	330	U						
4-Chlorophenyl-phenyl ether	1900	U	330	U						
4-Nitroaniline	4800	UJ	830	UJ						
4,6-Dinitro-2-methylphenol	4800	U	830	U						
N-Nitrosodiphenylamine	1900	U	330	U						
4-Bromophenyl-phenylether	1900	U	330	U						
Hexachlorobenzene	1900	U	330	U						
Atrazine	1900	U	330	U						
Pentachlorophenol	4800	U	830	U						
Phenanthrene	4300	J	330	U						
Anthracene	290	J	330	U						
Carbazole	1900	U	330	U						
Di-n-butylphthalate	12000	J	330	U						
Fluoranthene	1200	J	330	U						
Pyrene	2000	J	330	U						
Butylbenzylphthalate	14000	J	330	U						
3,3'-Dichlorobenzidine	1900	UJ	330	UJ						
Benzo(a)anthracene	1900	U	330	U						
Chrysene	200	J	330	U						
bis(2-Ethylhexyl)phthalate	1900	U	80	J						
Di-n-octylphthalate	1900	U	330	U						
Benzo(b)fluoranthene	1900	U	330	U						
Benzo(k)fluoranthene	1900	U	330	U						
Benzo(a)pyrene	1900	U	330	U						
Indeno(1,2,3-cd)pyrene	1900	U	330	U						
Dibenzo(a,h)anthracene	1900	U	330	U						
Benzo(g,h,i)perylene	1900	U	330	U						

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

Number of Soil Samples : 6
Number of Water Samples : 0

	Background				Lab QC		Lab QC			
Sample Number :	E1YT8		E1YT9		E1YT9MS		E1YT9MSD		E1YW0	
Sampling Location :	SS-1		SS-2		SS-2		SS-2		SS-3	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :	00:00		00:00		00:00		00:00		00:00	
%Moisture :	22		6		6		6		25	
pH :	6.6		6.1		6.1		6.1		6.9	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	2.2	U	1.8	U	1.8	U	1.8	U	2.3	U
beta-BHC	2.2	U	4.5	J	3.7	J	4.6	J	3.2	J
delta-BHC	2.2	U	3.6	J	3.2	J	2.9	J	4.2	J
gamma-BHC (Lindane)	2.2	U	1.8	UJ	8.0	J	8.4	J	2.3	U
Heptachlor	2.2	U	1.8	U	10		11		2.3	U
Aldrin	2.2	U	1.8	R	1.8	U	1.8	U	2.3	U
Heptachlor epoxide	2.2	U	1.8	U	1.8	U	1.8	U	5.0	J
Endosulfan I	2.2	U	11	J	1.8	U	1.8	U	2.3	U
Dieldrin	4.2	U	3.5	R	35	J	3.5	U	4.4	U
4,4'-DDE	4.2	U	41		38		47		7.8	J
Endrin	4.2	U	19	J	37	J	42	J	4.4	U
Endosulfan II	4.2	U	15	J	11	J	16	J	4.4	U
4,4'-DDD	4.2	U	3.5	U	3.5	U	3.5	U	4.4	U
Endosulfan sulfate	4.2	U	22	J	17	J	21	J	4.4	U
4,4'-DDT	4.2	UJ	3.5	R	3.5	UJ	3.5	UJ	25	J
Methoxychlor	22	UJ	42	J	32	J	42	J	54	J
Endrin ketone	4.2	U	3.5	U	3.5	U	3.5	U	4.4	U
Endrin aldehyde	4.2	U	3.5	U	3.5	U	3.5	U	4.4	U
alpha-Chlordane	2.2	U	1.8	U	1.8	U	1.8	U	2.3	U
gamma-Chlordane	2.2	U	13	J	11	J	13	J	6	
Toxaphene	220	U	180	U	180	U	180	U	230	U
Aroclor-1016	42	U	35	U	35	U	35	U	44	U
Aroclor-1221	86	U	71	U	71	U	71	U	89	U
Aroclor-1232	42	U	35	U	35	U	35	U	44	U
Aroclor-1242	42	U	35	U	35	U	35	U	44	U
Aroclor-1248	42	U	35	U	35	U	35	U	44	U
Aroclor-1254	42	U	35	U	35	U	35	U	44	U
Aroclor-1260	42	U	35	U	35	U	35	U	44	U

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

	Diluted						Diluted		Field duplicate of SS-3	
Sample Number :	E1YW0DL		E1YW1		E1YW2		E1YW2DL		E1YW3	
Sampling Location :	SS-3		SS-4		SS-5		SS-5		SS-6	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :	00:00		00:00		00:00		00:00		00:00	
%Moisture :	25		8		16		16		13	
pH :	6.9		6.2		6.8		6.8		7.7	
Dilution Factor :	2.0		1.0		1.0		2.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	~~4.5~~	~~U~~	1.9	U	2.0	U	~~4.1~~	~~U~~	2.0	U
beta-BHC	~~4.5~~	~~UJ~~	1.9	U	~~3~~		4.1	UJ	2.2	J
delta-BHC	~~4.5~~	~~U~~	1.9	U	8.0	J	~~7.1~~	~~J~~	2.5	J
gamma-BHC (Lindane)	~~4.5~~	~~U~~	1.9	U	2.0	U	~~4.1~~	~~U~~	2.0	U
Heptachlor	~~4.5~~	~~U~~	1.9	U	2.0	U	~~4.1~~	~~U~~	2.0	U
Aldrin	~~4.5~~	~~U~~	1.9	U	2.0	U	~~4.1~~	~~U~~	2.0	U
Heptachlor epoxide	~~4.5~~	~~U~~	1.9	U	4.7	J	~~4.1~~	~~U~~	2.5	J
Endosulfan I	~~4.5~~	~~U~~	1.9	U	7.8	J	~~4.1~~	~~U~~	2.0	U
Dieldrin	~~8.8~~	~~U~~	3.6	U	3.9	U	~~7.9~~	~~U~~	3.8	U
4,4'-DDE	~~8.8~~	~~U~~	3.6	U	9.5	J	~~7.9~~	~~U~~	4.2	J
Endrin	~~8.8~~	~~U~~	3.6	U	9.0	J	~~7.9~~	~~U~~	5.8	J
Endosulfan II	~~8.8~~	~~U~~	3.6	U	7.1	J	~~7.9~~	~~U~~	3.8	U
4,4'-DDD	~~8.8~~	~~U~~	3.6	U	3.9	U	~~7.9~~	~~U~~	3.8	U
Endosulfan sulfate	~~8.8~~	~~U~~	3.6	U	26		~~7.9~~	~~U~~	3.8	U
4,4'-DDT	~~23~~	~~J~~	5.2	J	17	J	~~9.4~~	~~J~~	13	J
Methoxychlor	~~45~~	~~UJ~~	18	UJ	20	UJ	~~40~~	~~UJ~~	35	J
Endrin ketone	~~8.8~~	~~U~~	3.6	U	3.9	U	~~7.9~~	~~U~~	3.8	U
Endrin aldehyde	~~8.8~~	~~U~~	3.6	U	3.9	U	~~7.9~~	~~U~~	3.8	U
alpha-Chlordane	~~4.5~~	~~U~~	1.9	U	2.0	U	~~4.1~~	~~U~~	2.0	U
gamma-Chlordane	60		2.6	J	3.8	J	~~4.1~~	~~U~~	8.0	J
Toxaphene	~~450~~	~~U~~	180	U	200	U	~~400~~	~~U~~	200	U
Aroclor-1016	~~88~~	~~U~~	36	U	39	U	~~79~~	~~U~~	38	U
Aroclor-1221	~~180~~	~~U~~	73	U	80	U	~~160~~	~~U~~	77	U
Aroclor-1232	~~88~~	~~U~~	36	U	39	U	~~79~~	~~U~~	38	U
Aroclor-1242	~~88~~	~~U~~	36	U	39	U	~~79~~	~~U~~	38	U
Aroclor-1248	~~88~~	~~U~~	36	U	39	U	~~79~~	~~U~~	38	U
Aroclor-1254	~~88~~	~~U~~	36	U	39	U	~~79~~	~~U~~	38	U
Aroclor-1260	~~88~~	~~U~~	36	U	39	U	~~79~~	~~U~~	38	U

Analytical Results (Qualified Data)

Case #: 30665 SDG : E1YT8
Site : TARCO SOUTH
Lab. : ENVSYS
Reviewer :
Date :

	Lab blank		Lab blank							
Sample Number :	PBLK46		PBLK52							
Sampling Location :										
Matrix :	Soil		Soil							
Units :	ug/Kg		ug/Kg							
Date Sampled :										
Time Sampled :										
%Moisture :	N/A		N/A							
pH :	6.0		6.0							
Dilution Factor :	1.0		1.0							
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	1.7	U	1.7	U						
beta-BHC	1.7	U	1.7	U						
delta-BHC	1.7	U	1.7	U						
gamma-BHC (Lindane)	1.7	U	1.7	U						
Heptachlor	1.7	U	1.7	U						
Aldrin	1.7	U	1.7	U						
Heptachlor epoxide	1.7	U	1.7	U						
Endosulfan I	1.7	U	1.7	U						
Dieldrin	3.3	U	3.3	U						
4,4'-DDE	3.3	U	3.3	U						
Endrin	3.3	U	3.3	U						
Endosulfan II	3.3	U	3.3	U						
4,4'-DDD	3.3	U	3.3	U						
Endosulfan sulfate	3.3	U	3.3	U						
4,4'-DDT	3.3	UJ	3.3	UJ						
Methoxychlor	17	UJ	17	UJ						
Endrin ketone	3.3	U	3.3	U						
Endrin aldehyde	3.3	U	3.3	U						
alpha-Chlordane	1.7	U	1.7	U						
gamma-Chlordane	1.7	U	1.7	U						
Toxaphene	170	U	170	U						
Aroclor-1016	33	U	33	U						
Aroclor-1221	67	U	67	U						
Aroclor-1232	33	U	33	U						
Aroclor-1242	33	U	33	U						
Aroclor-1248	33	U	33	U						
Aroclor-1254	33	U	33	U						
Aroclor-1260	33	U	33	U						

Analytical Results (Qualified Data)

Case #: 30665
Site : TARCO SOUTH
Lab. : LIBRTY
Reviewer : J. GANZ
Date : AUGUST 1, 2002
Background

SDG : ME1YT8
Number of Soil Samples : 6
Number of Water Samples : 0

Sample Number :	ME1YT8		ME1YT9		ME1YW0		ME1YW1		ME1YW2	
Sampling Location :	SS-1		SS-2		SS-3		SS-4		SS-5	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	07/01/2002		07/01/2002		07/01/2002		07/01/2002		07/01/2002	
Time Sampled :										
%Solids :	95.2		93.0		92.1		91.4		90.4	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	3400		4150		4040		4560		6050	
ANTIMONY	0.34	UJ	2.1	J	204	J	32.0	J	10.4	J
ARSENIC	0.88	U	0.88	U	1.3		0.91	U	1.4	
BARIUM	32.9		56.5		1010		160		101	
BERYLLIUM	0.19	J	0.23	J	0.22	J	0.26	J	0.30	J
CADMIUM	0.063	U	0.063	U	0.46	J	0.065	U	0.11	J
CALCIUM	710		504		1670		858		629	
CHROMIUM	5.2		8.0		222		43.9		12.0	
COBALT	2.7		3.2		4.9		4.2		5.4	
COPPER	3.4		4.7		4.5		4.8		12.2	
IRON	4460		4730		4700		5350		7180	
LEAD	4.5		6.1		15.9		7.5		9.2	
MAGNESIUM	680		622		641		639		892	
MANGANESE	199		262		291		305		634	
MERCURY	0.053	U	0.051	U	0.057	J	0.063	J	0.075	J
NICKEL	5.3		5.2		5.4		5.5		7.5	
POTASSIUM	167	J	234	J	279	J	230	J	457	J
SELENIUM	0.46	U	0.46	U	0.45	U	0.48	U	0.58	J
SILVER	0.15	U	0.15	U	0.14	U	0.15	U	0.15	U
SODIUM	59.1	J	67.9	J	29.6	U	41.2	J	42.0	J
THALLIUM	0.69	UJ	0.70	UJ	0.67	UJ	0.71	UJ	0.71	UJ
VANADIUM	8.6		9.4		9.2		10.5		12.1	
ZINC	19.9		56.8		1200		256		58.3	
CYANIDE	0.032	UJ	0.031	UJ	0.043	J	0.031	U	0.040	J

Analytical Results (Qualified Data)

Case #: 30665 SDG : ME1YT8
Site : TARCO SOUTH
Lab. : LIBRTY
Reviewer :
Date : Field duplicate of SS-3

Sample Number :	ME1YW3									
Sampling Location :	SS-6									
Matrix :	Soil									
Units :	mg/Kg									
Date Sampled :	07/01/2002									
Time Sampled :										
%Solids :	92.7									
Dilution Factor :	1.0									
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4160									
ANTIMONY	434	J								
ARSENIC	2.1									
BARIUM	1620									
BERYLLIUM	0.23	J								
CADMIUM	0.70	J								
CALCIUM	2640									
CHROMIUM	360									
COBALT	5.8									
COPPER	5.0									
IRON	4830									
LEAD	23.6									
MAGNESIUM	676									
MANGANESE	296									
MERCURY	0.051	J								
NICKEL	5.9									
POTASSIUM	311	J								
SELENIUM	0.46	U								
SILVER	0.15	U								
SODIUM	30.2	U								
THALLIUM	0.68	UJ								
VANADIUM	9.5									
ZINC	1840									
CYANIDE	0.080	J								

APPENDIX C

Soil Boring Logs and Groundwater Monitoring Well Construction Reports

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other ______

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763		MW-1

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Bridon – Ken, Scott FMI – KMS	04/13/98 (MM/DD/YY)	04/13/98 (MM/DD/YY)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			______ Feet MSL	714.3 Feet MSL	8.3 inches

Boring Location
State Plane ______ N, ______ E S/C/N Lat ° ' " Local Grid Location (If applicable)
SW 1/4 of SE 1/4 of Section 29, T 17N, R 7 E/(W) Long ° ' " ______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	32	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Top Grass										
1	18	1 1 2 2		sand w/ silt, f-med. gr., dk brn, damp	SP-SM			Ø		D				
2	16	1 1 2 1		same as above	SP-SM			Ø		D				
3	18	2 1 2 2		same as above, less silty, moist	SP-SM			Ø		M				
4	18	2 3 2 2		6" same as above 12" med. gr. sand, brn, damp	SP-SM SP			Ø		D				
5	18	2 3 4	10	med. gr. sand, brn, damp	SP			Ø		D				
6	18	4 3 5	20	med-coarse gr. sand, trace gravel, brn, damp	SP			Ø		D				
7	14	2 3 4 2	30	coarse gr. sand, brn, damp-moist, trace gravel	SP			Ø		D-M				
8	16	11 8 7 10	40	med-coarse gr. sand, trace gravel, brn, damp	SP			Ø		D				
9	16	7 8 12	50	coarse gr. sand, trace gravel, brn, damp	SP			Ø		D				
10	16	NA	60	same as above	SP			Ø		D				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Kyle [signature]	Fluid Management

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763		MW-1

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Bridon – Ken, Scott FMI – KMS	04/13/98 (M M D D Y Y)	04/13/98 (M M D D Y Y)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	714.3 Feet MSL	8.3 inches

Boring Location
State Plane _____ N, _____ E S/C/N
SW 1/4 of SE 1/4 of Section 29, T 17N, R 7 E/W

Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
☐ N _____ Feet ☐ S ☐ E _____ Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	32	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			60											
11	16	45/56		same as above, wet	SP			Ø		W				
			70											
			80	EOB @ 78'										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Kyle Thurber Firm: Fluid Management

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Page 1 of 2

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763		MW-2

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Brichn – Ken, Scott FMI – KMS	04/16/98 (MM/DD/YY)	04/16/98 (MM/DD/YY)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	712.5 Feet MSL	8.3 inches

Boring Location
State Plane _____ N, _____ E S/C/N
SW 1/4 of SE 1/4 of Section 29, T 17N, R 7 E/W
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	32	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Top Grass										
1	14	1 1 1		sand w/ silt, dk brn, moist	SP-SM			0		M				
2	18	3 3 2 2		same as above, moist	SP-SM			0		M				
3	18	3 2 4		same as above, moist-wet	SP-SM			0		M-W				
4	18	3 4 3 4		2" same as above 16" F-med. gr. sand, lt brn, damp	SP-SM SP			0		D				
5	18	2 2 2 2	10	4" silty sand, dk brn, moist 14" med. gr. sand, trace silt, dk brn, damp	SM SP			0		M D				
			20											
6	16	3 4 5 5		med-c. gr. sand, trace gravel, brn, damp	SP			0		D				
			30											
7	16	7 9 12 7		same as above	SP			0		D				
			40											
8	16	9 9 12 15		same as above	SP			1		D				
			50											
9	14	5 5 8 5		c-gr. sand, trace gravel, brn, damp	SP			1		D				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Kyle Thurston Firm Environmental Management

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Page 2 of 2

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763		MW-2

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Brioha – Ken, Scott FMI – KMS	04/16/98 (M M D D Y Y)	04/16/98 (M M D D Y Y)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	712.5 Feet MSL	8.3 inches

Boring Location
State Plane _____ N, _____ E S/C/N
Lat ° ' "
SW 1/4 of SE 1/4 of Section 29, T 17 N, R 7 E W
Long ° ' "

Local Grid Location (If applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	32	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
10	14	8 12 13	60	same as above	SP			1		D				
			70											
11	12	NA		med- coarse gr. sand, brn, wet	SP			1		W				
			80	EOB @ 71'										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Kyle Shubert Firm Fluid Management

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763		MW-3

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Brioha – Ken, Scott FMI – KMS	04/17/98 (M M D D Y Y)	04/17/98 (M M D D Y Y)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			____ Feet MSL	713.0 Feet MSL	8.3 inches

Boring Location
State Plane ____ N, ____ E S/C/N
SW 1/4 of SE 1/4 of Section 29, T 17N, R 7 E/W
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	32	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1	18	—		silty sand, dk brn, moist	SM			Ø		M				
2	18	3 2 3 4		6" sand as above 12" sand w/ silt, brn, damp – moist	SM SP-SM			Ø		D-M				
3	16	2 2 2 2		sand w/ silt, brn, damp - moist	SP-SM			Ø		D-M				
4	18	4 4 4 5		6" sand as above, moist - wet 12" med. gr. sand, brn, damp	SP-SM SP			Ø		M-W				
5	16	2 3 2 4	10	med. gr. sand, brn, damp	SP			Ø		D				
			20											
6	16	2 3 3 2		same as above	SP			Ø		D				
			30											
7	14	3 5 7 7		med - coarse gr. sand, brn, damp	SP			Ø		D				
			40											
8	16	4 7 8 12		med. gr. sand, brn, damp	SP			Ø		D				
			50											
9	16	7 7 3 12		med - coarse gr. sand, brn, damp	SP			Ø		D				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Kyle Hunter Firm: Fluid Management

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Page 2 of 2

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763		MW-3

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M D D Y Y)	Date Drilling Completed (M M D D Y Y)	Drilling Method
Brian - Ken, Scott FMI - KMS	04/17/98	04/17/98	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			____ Feet MSL	713.0 Feet MSL	8.3 inches

Boring Location
State Plane ____ N, ____ E S/C/N
SW 1/4 of SE 1/4 of Section 29, T 17N, R 7 E/W
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	32	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
10	16	7/8/10/15	60	Same as above	SP			Ø		D				
			70											
11	16	6/8/10/14		med. gr. sand, brn, wet	SP			Ø		W				
			80	EOB @ 78'										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Kyle Thurber Firm: Fluid Management

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other ______

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763	— — — — — — — —	MW-4

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Briohn – Ken, Scott FMI – KMS	04/17/98 (MM DD YY)	04/17/98 (MM DD YY)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			______ Feet MSL	742.5 Feet MSL	8.3 inches

Boring Location
State Plane ______ N, ______ E S/C/N
SW 1/4 of SE 1/4 of Section 29, T 17N, R 7 E/W (W circled)
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "

Local Grid Location (If applicable)
______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	32	Onalaska

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1	—	16		sand w/silt, organics, dk brn, moist	SP-SM			1			M			
2	—	16		f-med. gr. sand w/silt, brn, damp	SP-SM			1			D			
3	2224	18		same as above, fine gr.	SP-SM			1			D			
4	1112	18		same as above, fine gr.	SP-SM			1			D			
5	2222	16	10	same as above, fine gr.	SP-SM			1			D			
6	122	16	20	same as above, fine gr.	SP-SM			1			D			
7	Push	12	30	same as above, fine gr.	SP-SM			1			D			
8	1121	16	40	4" same as above, wet 6" silt, dk brn, wet 6" med. gr. sand, brn, moist	SP-SM ML SP			1			W M			
9	2465	18	50	med. gr. sand, brn, damp	SP			1			D			

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Kyle Shubert	Fluid Management

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763		MW-4

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Brian – Ken, Scott FMI – KMS	04/17/98 (M M D D Y Y)	04/17/98 (M M D D Y Y)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	742.5 Feet MSL	8.3 inches

Boring Location
State Plane _____ N, _____ E S/C/N
SW 1/4 of SE 1/4 of Section 29, T 17N, R 7 E/W

Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County: La Crosse
DNR County Code: 32
Civil Town/City/ or Village: Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
10	16	5 6 8 7	60	med-coarse gr. sand w/gravel, brn, damp	SP			1		D				
			70											
11	16	7 10 14 18		med. gr. sand, brn, damp	SP			1		D				
			80											
12	14	12 17 15 20		same as above	SP			1		D				
			90											
13	12	12 8 14 16		same as above	SP			1		D				
			100											
14	16	14 28 25 30		med. gr. sand, brn, wet	SP			1		W				
			110	EOB @ 108'										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Kyle Thurber Firm: Fluid Management

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route To:
- ☐ Solid Waste
- ☐ Emergency Response
- ☐ Wastewater
- ☐ Superfund
- ☐ Haz. Waste
- ☐ Underground Tanks
- ☐ Water Resources
- ☐ Other ______

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 5-92

Facility/Project Name	License/Permit/Monitoring Number	Boring Number	
Turco South Property 96.763	— — — — — — — —	TB-2	
Boring Drilled By (Firm name and name of crew chief)	**Date Drilling Started**	**Date Drilling Completed**	**Drilling Method**
Brichn – Ken, Scott FMI – KMS	04/16/98 (MM DD YY)	04/16/98 (MM DD YY)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			______ Feet MSL	______ Feet MSL	8.3 inches

Boring Location
State Plane ______ N, ______ E S/C/N Lat ___° ___' ___"
SW 1/4 of SE 1/4 of Section 29, T 17 N, R 7 E/W (W circled) Long ___° ___' ___"

Local Grid Location (If applicable): ______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	3 2	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Top Grass										
1	18	1 2 2 2		Sand w/ silt, top 8" dk brn – black, staining; Lower 10" brn, damp – moist	SP-SM			1		D-M				
2	18	2 4 4 5		Sand w/ silt, dk brn – brn, damp – moist	SP-SM			1		D-M				
3	18	2 3 4 4	5	2" same as above; 6" silty sand, dk brn, moist; 10" med – coarse gr. sand, brn, damp	SP-SM SM SP			1		M-D				
4	16	2 3 3 4		med – coarse gr. sand, brn, damp	SP			1		D				
5	16	3 4 3 3	10	6" same as above; 10" med. gr. sand, brn, damp	SP			1		D				
6	16	2 3 2 3		med. gr. sand, brn, damp	SP			1		D				
7	16	2 2 4 4	15	same as above	SP			1		D				
8	18	2 3 4 3		med – coarse gr. sand, brn, damp	SP			1		D				
			20											
9	16	3 5 5 4		same as above	SP			1		D				
10	16	3 3 5 4		same as above	SP			1		D				
11	14	3 5 4 5		F – med. gr. sand, lt. brn, damp	SP			1		D				
12	16	3 3 4 5		med. gr. sand, brn, damp	SP			1		D				
13	16	8 11 13 9		same as above, trace gravel	SP			1		D				
14	16	3 7 11 13		same as above	SP			1		D				

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Kyle [signature]	Fluid Management

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other ____

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Turco South Property 96.763		TB-2

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Briohn – Ken, Scott FMI – KMS	04/16/98 (MM DD YY)	04/16/98 (MM DD YY)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			____ Feet MSL	____ Feet MSL	8.3 inches

Boring Location
State Plane ____ N, ____ E S/C/N Lat ° ' "
SW 1/4 of SE 1/4 of Section 29, T 17 N, R 7 E/W Long ° ' "

Local Grid Location (If applicable)
____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	32	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			60											
15	16	NA		same as above, wet	SP			1		W				
				EOB @ 66'										
			70											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Kyle [signature]	Fluid Management

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Superfund ☐ Other ____________

SOIL BORING LOG INFORMATION
Form 4400-122 Rev. 5-92

Facility/Project Name	License/Permit/Monitoring Number	Boring Number	
Turco South Property 96.763	_ _ _ _ _ _ _ _	TB-1	
Boring Drilled By (Firm name and name of crew chief)	**Date Drilling Started**	**Date Drilling Completed**	**Drilling Method**
Bridhn – Ken, Scott FMI – KMS	04/16/98 (MM DD YY)	04/16/98 (MM DD YY)	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			______ Feet MSL	NA Feet MSL	8.3 inches

Boring Location
State Plane ______________ N, ______________ E S/C/N Lat ___° ___' ___"
SW 1/4 of SE 1/4 of Section 29, T 17N, R 7 E/(W) Long ___° ___' ___"

Local Grid Location (If applicable)
______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
La Crosse	3 2	Onalaska

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
				Top Grass										
1	18	1 1 2 2		sand w/ silt, top 8" dk brn, lower 10" brn, damp	SP-SM			1		D				
2	18	2 2 2 2		sand w/ silt, brn, damp	SP-SM			1		D				
3	16	2 2 2 2	5	same as above, less silty	SP-SM			1		D				
4	18	2 3 4		6" same as above 6" silty sand, dk brn, moist 6" med-coarse gr. sand, brn, damp	SP-SM SM SP			1		D-M				
5	16	2 2 2 3	10	med.-coarse gr. sand, brn, damp	SP			1		D				
6	18	4 5 6 4		6" same as above 12" F-med. gr. sand, lt. brn, damp	SP			1		D				
7	16	2 3 5 5	15	F-med. gr. sand, lt brn, damp	SP			1		D				
8	18	3 5 8 8		same as above	SP			1		D				
			20	EOB @ 19.5'										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Kyle [signature]	Fluid Management

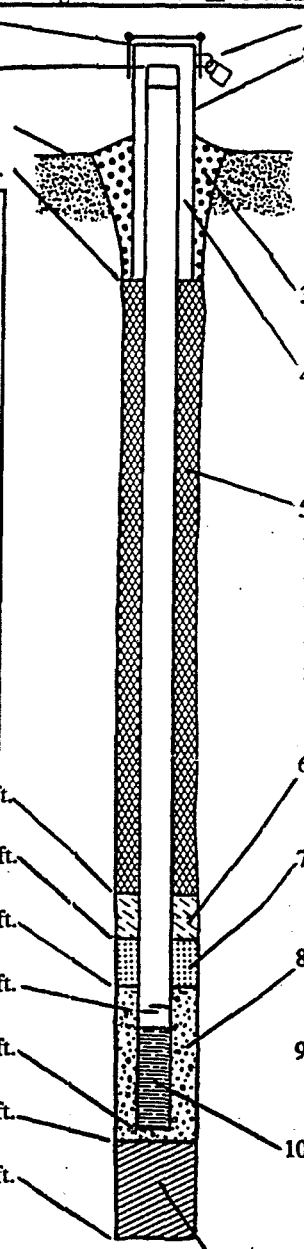
This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name: Turco South Property 96.763	Local Grid Location of Well: _____ ft. ☐N ☐S _____ ft. ☐E ☐W	Well Name: MW-1
Facility License, Permit or Monitoring Number: _____	Grid Origin Location: Lat. ____ ____ ____ Long. ____ ____ ____ or	Wis. Unique Well Number / DNR Well Number: _____ / _____
Type of Well: Water Table Observation Well ■ 11; Piezometer ☐ 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed: 04/13/98 (m m d d y y)
Distance Well Is From Waste/Source Boundary: _____ ft.	Section Location of Waste/Source: SW1/4 of SE 1/4 of Sec. 29, T. 17 N, R. 7 ☐E ■W	Well Installed By: (Person's Name and Firm): Brian - Ken, Scott; EMI - KMS
Is Well A Point of Enforcement Std. Application? ■ Yes ☐ No	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient; d ☐ Downgradient n ☐ Not Known	



A. Protective pipe, top elevation 717.22 ft. MSL
B. Well casing, top elevation 717.07 ft. MSL
C. Land surface elevation 714.3 ft. MSL
D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☐ 41; Other ☐ ____ _____

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☐ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis):
_____

E. Bentonite seal, top _____ ft. MSL or 0.0 ft.
F. Fine sand, top _____ ft. MSL or 59.0 ft.
G. Filter pack, top _____ ft. MSL or 61.0 ft.
H. Screen joint, top _____ ft. MSL or 63.0 ft.
I. Well bottom _____ ft. MSL or 78.0 ft.
J. Filter pack, bottom _____ ft. MSL or 78.0 ft.
K. Borehole, bottom _____ ft. MSL or 78.0 ft.
L. Borehole, diameter 8.3 in.
M. O.D. well casing 2.16 in.
N. I.D. well casing 2.00 in.

1. Cap and lock? ■ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 5.0 ft.
c. Material: Steel ■ 04; Other ☐ ____ _____
d. Additional protection? ☐ Yes ■ No
If yes, describe: _____
3. Surface seal: Bentonite ■ 30; Concrete ☐ 01; Other ☐ ____ _____
4. Material between well casing and protective pipe: Bentonite ☐ 30; Annular space seal ☐ ____; Other ■ ____ sand
5. Annular space seal: a. Granular Bentonite ■ 33
b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. 20.06 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ■ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite pellets ☐ 32
c. _____ Other ☐ ____
7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added 0.68 ft^3
8. Filter pack material: Manufacturer, product name and mesh size
a. _____
b. Volume added 5.78 ft^3
9. Well casing: Flush threaded PVC schedule 40 ■ 23; Flush threaded PVC schedule 80 ☐ 24; _____ Other ☐ ____
10. Screen material: _____
a. Screen type: Factory cut ■ 11; Continuous slot ☐ 01; _____ Other ☐ ____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 15.0 ft.
11. Backfill material (below filter pack): None ■ 14; _____ Other ☐ ____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Kyle Schuler | Firm: Fluid Management

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch.144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than $5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ■ Other ☐ _____

Facility/Project Name	County Name	Well Name
Tarco South Property	La Crosse	MW-1
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well Number**
_____	32	

1. Can this well be purged dry? ☐ Yes ■ No

2. Well development method

surged with bailer and bailed	■ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 45 min.

4. Depth of well (from top of well casisng) 81.6 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 1.8 gal.

7. Volume of water removed from well 25.0 gal.

8. Volume of water added (if any) Ø.Ø gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 73.65 ft.	74.65 ft.
Date	b. 04/14/98 m m d d y y	04/14/98 m m d d y y
Time	c. 12:00 ☐ a.m. ■ p.m.	12:45 ☐ a.m. ■ p.m.
12. Sediment in well bottom	0.1 inches	0.1 inches
13. Water clarity	Clear ■ 10 Turbid ☐ 15 (Describe)	Clear ■ 20 Turbid ☐ 25 (Describe)
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: Allan Wolfe

Firm: Fluid Management

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [signature]

Print Initials: KMS

Firm: Fluid Management

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ ________

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name Turco South Property 96.763	Local Grid Location of Well ________ ft. ☐ N. ☐ S. ________ ft. ☐ E. ☐ W.	Well Name MW - 2
Facility License, Permit or Monitoring Number _ _ _ _ _ _ _ _	Grid Origin Location Lat. ____ Long. ____ or	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well ■ 11 Piezometer ☐ 12	St. Plane ________ ft. N, ________ ft. E.	Date Well Installed 04/16/98 (m m d d y y)
Distance Well Is From Waste/Source Boundary ft.	Section Location of Waste/Source SW 1/4 of SE 1/4 of Sec. 29, T. 17 N, R. 7 ☐ E. ■ W.	Well Installed By: (Person's Name and Firm) Briohn - Ken, Scott
Is Well A Point of Enforcement Std. Application? ■ Yes ☐ No	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	EMI - KMS

A. Protective pipe, top elevation 715.08 ft. MSL

B. Well casing, top elevation 714.94 ft. MSL

C. Land surface elevation 712.5 ft. MSL

D. Surface seal, bottom _ _ _ _ . _ ft. MSL or _ _ . _ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
________ Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☐ No

Describe ________

17. Source of water (attach analysis):

E. Bentonite seal, top _ _ _ _ . _ ft. MSL or 0.0 ft.

F. Fine sand, top _ _ _ _ . _ ft. MSL or 58.0 ft.

G. Filter pack, top _ _ _ _ . _ ft. MSL or 60.0 ft.

H. Screen joint, top _ _ _ _ . _ ft. MSL or 62.0 ft.

I. Well bottom _ _ _ _ . _ ft. MSL or 77.0 ft.

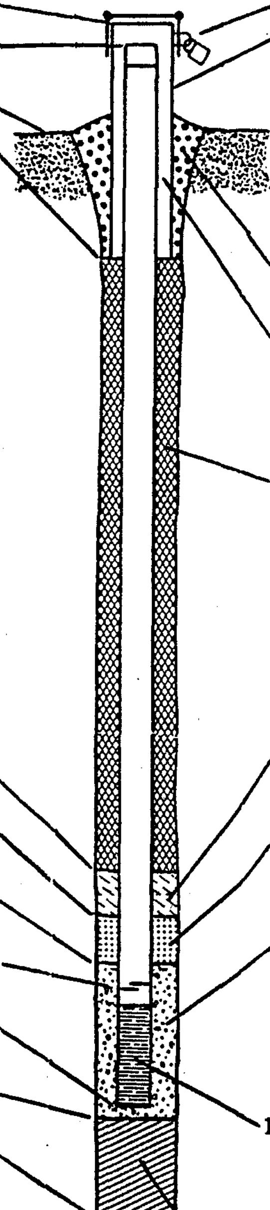
J. Filter pack, bottom _ _ _ _ . _ ft. MSL or 77.0 ft.

K. Borehole, bottom _ _ _ _ . _ ft. MSL or 77.0 ft.

L. Borehole, diameter 8.3 in.

M. O.D. well casing 2.16 in.

N. I.D. well casing 2.00 in.



1. Cap and lock? ■ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 5.0 ft.
c. Material: Steel ■ 04
________ Other ☐
d. Additional protection? ☐ Yes ■ No
If yes, describe: ________
3. Surface seal: Bentonite ■ 30
Concrete ☐ 01
________ Other ☐
4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☐
sand Other ■
5. Annular space seal: a. Granular Bentonite ■ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . . Bentonite-cement grout ☐ 50
e. 19.72 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ■ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
c. ________ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. ________
b. Volume added 0.68 ft^3
8. Filter pack material: Manufacturer, product name and mesh size
a. ________
b. Volume added 5.78 ft^3
9. Well casing: Flush threaded PVC schedule 40 ■ 23
Flush threaded PVC schedule 80 ☐ 24
________ Other ☐
10. Screen material: ________
a. Screen type: Factory cut ■ 11
Continuous slot ☐ 01
________ Other ☐
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 15.0 ft.
11. Backfill material (below filter pack): None ■ 14
________ Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Kyle Shuler (signature)	Fluid Management

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch.144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than $5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ■ Other ☐ _____

Facility/Project Name	County Name	Well Name
Tarco South Property	La Crosse	MW-2
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well Number**
_____	32	_____ / _____

1. Can this well be purged dry? ☐ Yes ■ No

2. Well development method

surged with bailer and bailed	■ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 45 min.

4. Depth of well (from top of well casisng) 78.8 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 1.5 gal.

7. Volume of water removed from well 27.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 72.03 ft.	72.05 ft.
Date	b. 04/20/98 (m m d d y y)	04/20/98 (m m d d y y)
Time	c. 10:45 ■ a.m. ☐ p.m.	11:30 ■ a.m. ☐ p.m.
12. Sediment in well bottom	0.1 inches	0.1 inches
13. Water clarity	Clear ■ 10 Turbid ☐ 15 (Describe)	Clear ☐ 20 Turbid ■ 25 (Describe)
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: Allan Wolfe

Firm: Fluid Management

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [signature]

Print Initials: KMS

Firm: Fluid Management

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name: Turco South Property 96.763	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-3
Facility License, Permit or Monitoring Number: _____	Grid Origin Location: Lat. ____ ____ ____ Long. ____ ____ ____ or	Wis. Unique Well Number / DNR Well Number: _____ / _____
Type of Well: Water Table Observation Well ■ 11; Piezometer ☐ 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed: 04/17/98 (m m d d y y)
Distance Well Is From Waste/Source Boundary: _____ ft.	Section Location of Waste/Source: SW 1/4 of SE 1/4 of Sec. 29, T. 17 N, R. 7 ■ W. ☐ E.	Well Installed By: (Person's Name and Firm): Brian - Ken, Scott; EMI - KMS
Is Well A Point of Enforcement Std. Application? ■ Yes ☐ No	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient; d ☐ Downgradient n ☐ Not Known	

A. Protective pipe, top elevation 715.38 ft. MSL
B. Well casing, top elevation 715.20 ft. MSL
C. Land surface elevation 713.0 ft. MSL
D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☐ No

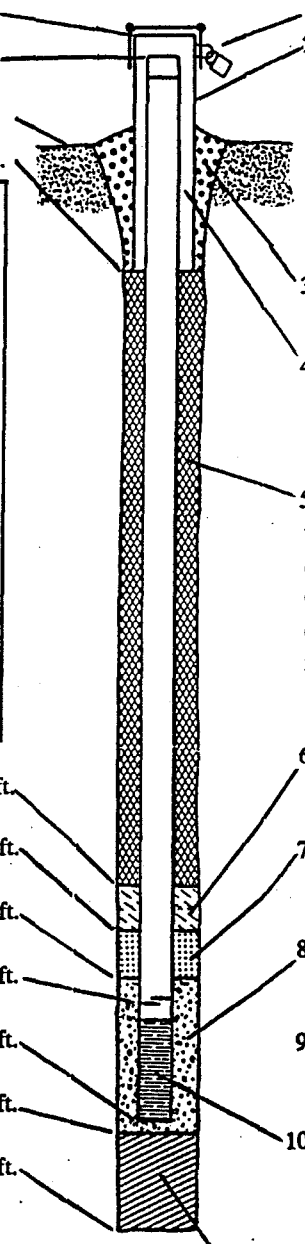
14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☐ 41; Other ☐ ____
_____

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☐ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis):
_____

E. Bentonite seal, top _____ ft. MSL or 0.0 ft.
F. Fine sand, top _____ ft. MSL or 52.0 ft.
G. Filter pack, top _____ ft. MSL or 61.0 ft.
H. Screen joint, top _____ ft. MSL or 63.0 ft.
I. Well bottom _____ ft. MSL or 78.0 ft.
J. Filter pack, bottom _____ ft. MSL or 78.0 ft.
K. Borehole, bottom _____ ft. MSL or 78.0 ft.
L. Borehole, diameter 8.3 in.
M. O.D. well casing 2.16 in.
N. I.D. well casing 2.00 in.



1. Cap and lock? ■ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 5.0 ft.
c. Material: Steel ■ 04; Other ☐ ____
d. Additional protection? ☐ Yes ■ No
If yes, describe: _____
3. Surface seal: Bentonite ■ 30; Concrete ☐ 01; Other ☐ ____
4. Material between well casing and protective pipe: Bentonite ☐ 30; Annular space seal ☐ ____; Other ■ ____
sand
5. Annular space seal: a. Granular Bentonite ■ 33
b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. 20.06 Ft³ volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ■ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite pellets ☐ 32
c. _____ Other ☐ ____
7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added 0.34 ft³
8. Filter pack material: Manufacturer, product name and mesh size
a. _____
b. Volume added 5.78 ft³
9. Well casing: Flush threaded PVC schedule 40 ■ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ ____
_____
10. Screen material: _____
a. Screen type: Factory cut ■ 11; Continuous slot ☐ 01; Other ☐ ____
_____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 15.0 ft.
11. Backfill material (below filter pack): None ■ 14; Other ☐ ____
_____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Kyle Hunter	Envid Management

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch.144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than $5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT
Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ■ Other ☐ _____

Facility/Project Name	County Name	Well Name
Tarco South Property	La Crosse	MW-3
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well Number**
_____	32	_____ / _____

1. Can this well be purged dry? ☐ Yes ■ No

2. Well development method

surged with bailer and bailed	■ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 60 min.

4. Depth of well (from top of well casisng) 79.9 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 1.6 gal.

7. Volume of water removed from well 27.0 gal.

8. Volume of water added (if any) Ø.Ø gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 72.47 ft.	79.68 ft.
Date	b. 04/20/98 (m m d d y y)	04/20/98 (m m d d y y)
Time	c. 11:45 ■ a.m. ☐ p.m.	12:45 ☐ a.m. ■ p.m.
12. Sediment in well bottom	0.1 inches	0.1 inches
13. Water clarity	Clear ■ 10 Turbid ☐ 15 (Describe)	Clear ☐ 20 Turbid ■ 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: Allan Wolfe

Firm: Fluid Management

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [signature]

Print Initials: KMS

Firm: Fluid Management

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name: Tarco South Property 96.763	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-4
Facility License, Permit or Monitoring Number: _____	Grid Origin Location: Lat. ___ ___ ___ Long. ___ ___ ___ or	Wis. Unique Well Number / DNR Well Number: _____ / _____
Type of Well: Water Table Observation Well ■ 11; Piezometer ☐ 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed: 04/17/98 (m m d d y y)
Distance Well Is From Waste/Source Boundary: _____ ft.	Section Location of Waste/Source: SW 1/4 of SE 1/4 of Sec. 29, T. 17 N, R. 7 ☐E. ■W.	Well Installed By: (Person's Name and Firm): Brian - Ken, Scott; FMI - KMS
Is Well A Point of Enforcement Std. Application? ■ Yes ☐ No	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient; d ☐ Downgradient n ☐ Not Known	

A. Protective pipe, top elevation 744.24 ft. MSL
B. Well casing, top elevation 744.77 ft. MSL
C. Land surface elevation 742.5 ft. MSL
D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☐ No

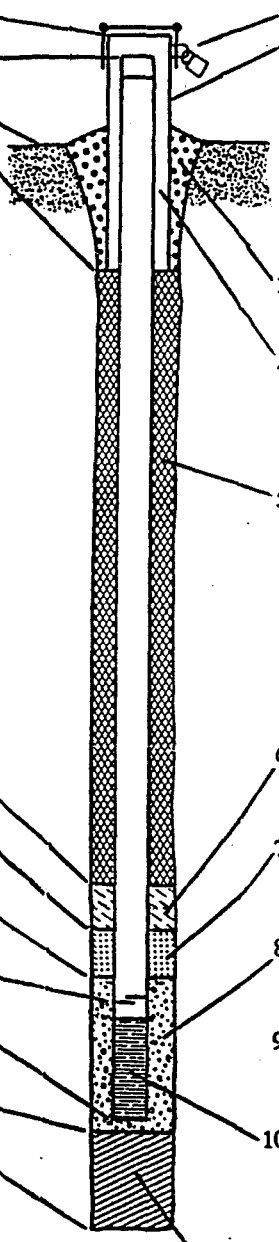
14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☐ 41; Other ☐ __ _____

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☐ 99

16. Drilling additives used? ☐ Yes ☐ No
Describe _____

17. Source of water (attach analysis):
_____

E. Bentonite seal, top _____ ft. MSL or 0.0 ft.
F. Fine sand, top _____ ft. MSL or 89.0 ft.
G. Filter pack, top _____ ft. MSL or 91.0 ft.
H. Screen joint, top _____ ft. MSL or 93.0 ft.
I. Well bottom _____ ft. MSL or 108.0 ft.
J. Filter pack, bottom _____ ft. MSL or 108.0 ft.
K. Borehole, bottom _____ ft. MSL or 108.0 ft.
L. Borehole, diameter 8.3 in.
M. O.D. well casing 2.16 in.
N. I.D. well casing 2.00 in.



1. Cap and lock? ■ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 5.0 ft.
c. Material: Steel ■ 04; Other ☐ __ _____
d. Additional protection? ☐ Yes ■ No
If yes, describe: _____
3. Surface seal: Bentonite ■ 30; Concrete ☐ 01; Other ☐ __ _____
4. Material between well casing and protective pipe: Bentonite ☐ 30; Annular space seal ☐ __; Other ■ __ sand
5. Annular space seal: a. Granular Bentonite ■ 33
b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
e. 30.26 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ■ 08
6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite pellets ☐ 32
c. _____ Other ☐ __
7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added 0.68 ft^3
8. Filter pack material: Manufacturer, product name and mesh size
a. _____
b. Volume added 5.78 ft^3
9. Well casing: Flush threaded PVC schedule 40 ■ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ __ _____
10. Screen material: _____
a. Screen type: Factory cut ■ 11; Continuous slot ☐ 01; Other ☐ __ _____
b. Manufacturer Johnson
c. Slot size: 0.010 in.
d. Slotted length: 15.0 ft.
11. Backfill material (below filter pack): None ■ 14; Other ☐ __ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Kyle Shuler | Firm: Fluid Management

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch.144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than $5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 4-90

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ■ Other ☐ _____

Facility/Project Name	County Name	Well Name
Tarco South Property	La Crosse	MW - 4
Facility License, Permit or Monitoring Number	**County Code**	**Wis. Unique Well Number** / **DNR Well Number**
_____	32	_____ / _____

1. Can this well be purged dry? ☐ Yes ■ No

2. Well development method

surged with bailer and bailed	■ 41
surged with bailer and pumped	☐ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 80 min.

4. Depth of well (from top of well casisng) 108.8 ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 1.7 gal.

7. Volume of water removed from well 27.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 102.28 ft.	102.30 ft.
Date	b. 04/20/98 (m m d d y y)	04/20/98 (m m d d y y)
Time	c. 1:00 ☐ a.m. ■ p.m.	2:20 ☐ a.m. ■ p.m.
12. Sediment in well bottom	0.1 inches	0.1 inches
13. Water clarity	Clear ■ 10 Turbid ☐ 15	Clear ☐ 20 Turbid ■ 25
(Describe)		

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____.__ mg/l	_____.__ mg/l
15. COD	_____.__ mg/l	_____.__ mg/l

16. Additional comments on development:

Well developed by: Person's Name and Firm

Name: Allan Wolfe

Firm: Fluid Management

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [signature]

Print Initials: KMS

Firm: Fluid Management

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.